WHAT IS EUGENICS?

DARWIN

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As a special tribute to Major Darwin, the Congress has inserted his portrait in this edition of "What is Eugenics?"

WHAT IS EUGENICS?

BY
LEONARD DARWIN

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PREFACE

THE word "Eugenics" now often occurs in the newspapers, and there must be some who are asking, What is Eugenics? What is it all about? In the following pages an attempt is made to answer these questions in the fewest possible words. For the sake of brevity, a dogmatic tone has been adopted, all such expressions as "I believe," "I think," being omitted. Perhaps I may say that the arguments in favour of the views here set forth are stated at much greater length in my book on "The Need for Eugenic Reform" (Murray; 1926). Also that this is a subject which has been in my thoughts for more than half a century, and that during the last seventeen years of that period, whilst I have been President of the Eugenics Society, it has been my constant study.

Condensed writing is necessarily hard reading. If the reader would read only one chapter a night, and read it three times over, it might have a greater effect than reading a more verbose book three times the length and much more than three times as expensive.

L. D.

August, 1928.

INTRODUCTORY STATEMENT

The eugenics movement in this country has suffered somewhat—at least among the well educated—from the suspicion of sentimentality and of scientific superficiality. Certain of its more enthusiastic proponents may have given some ground for this distrustful attitude. But, be that as it may, no thoughtful person who reflects upon the vital and social statistics of his own nation, to say nothing of those of less favoured peoples, can have the slightest doubt that the population problem is going quickly to take on vastly greater importance than it has ever before enjoyed. International, as well as national, relations are certain to be increasingly and often critically affected by it. Not only the question of the total population, but also, and even more urgently, the problem of selecting the better and suppressing the poorer stocks, must be given exhaustive study.

No one is more competent to discuss these issues than Major Leonard Darwin, who for nearly half a century has been recognised as an authority in this field. In the present monograph, he has brought together an extraordinary amount of material and condensed its implications into the space of a few lucidly written pages. It should receive a warm welcome in its American dress. It will certainly be found provocative to honest thinking upon the problems with which it deals, and at the present moment that is the result most to be desired.

JAMES R. ANGELL

Yale University
New Haven, Conn.
December 12, 1929

Message to the International Congress of Eugenics, New York, 1932

As advancing years will prevent me from attending the Congress at New York, may I be allowed to take this opportunity of sending to it a message to say how very sincerely I appreciate the great honor of being nominated as one of its Honorary Presidents and how keenly I wish it every success, even though knowing that such success is a certainty? And may I take this opportunity of adding a few words concerning eugenic policy generally?

In order to be practically successful in our endeavors to promote racial progress, or, I should rather say, to stem racial decay, two things are necessary. We must have such accurate scientific knowledge as will make it possible to foretell with a considerable degree of probability the consequences of any proposed social policy. And we must include within the scope of our moral precepts—of our religious ideals—a firm determination to pursue whatever policy is thus indicated as tending steadily to improve the inborn qualities of our nation as the generations succeed each other.

As to the many institutions in America where admirable scientific work is being carried on in this field, there is one which I must, for two reasons, be allowed on this occasion to pick out for special mention, and that is the Eugenics Record Office, now a department of the Carnegie Institution of Washington, located on Long Island, New York. In the first place, it has for many years been under the direction of Charles B. Davenport, the President of this Congress, with Harry H. Laughlin, Secretary to the Congress, in immediate charge; and

during that time excellent work has there been accomplished. In the second place, its initiation was made possible to a large extent by the generosity of Mrs. E. H. Harriman; and I should like to call the attention of the women of America to the fact that many opportunities still exist in their country for promoting national progress through the agency of eugenics; for none of the institutions concerned is too wealthy. It is, I fear, somewhat invidious to mention names on such occasions; but, as my Society in England not long ago received a large bequest—not nearly so large as was reported—I cannot but express my hope that the cause of eugenics in America will have the same good luck. Again, the Eugenics Research Association is setting out on a career of very useful practical enquiries of a nature especially interesting to me.

Thus far I have only mentioned the more practical aspects of the labors of your Congress. As to the students of genetics, that being the very foundation on which eugenics is built, in whatever part of the world they live the name of T. H. Morgan is certain to be indelibly recorded in their minds; for the work done by him, and by an able band of American fellow workers, has been of inestimable value, not only to pure science, but also in the promotion of practical progress in racial matters.

As to the practical benefits certain to result from eugenic reforms, the sterilization experiment has been soberly advocated and wisely pursued in the United States, and the world will owe much to your country for the lead given in this direction. And, in this connection, the Human Betterment Foundation of California calls for special mention. Up till now, all such endeavors to stamp out defective heredity have been applied only to the grossly defective; and this limitation has probably been wise whilst eugenics was yet young. Racial deterioration is, however, I fully believe, taking place amongst us in such a way as to affect society as a

whole; and, if this be so, the cure should be as widespread as the disease. Many methods, including voluntary sterilization stimulated by some carefully regulated pressure, must be utilized in the future in order to lessen the rate of multiplication of the lower half of humanity, and in this endeavor I hope to see America also playing a leading part.

Turning to what is called positive eugenics, that is to the methods of increasing the fertility of all the better stocks, here there is now a crying need for a bold forward movement. The very first step should be to make certain indisputable truths so widely known that they shall come to affect the everyday life of the whole nation. All should be made to realize that those stocks in which the families are habitually limited so as to contain only one or two children, are, in fact, disappearing off the face of the earth. Science has now taught us that each time that procreation takes place, one half of the hereditary endowment allotted to a human being for that occasion is actually thrown away, the half retained being joined up with a similar half from the other parent, these two together making up the full endowment needed by the child. But if half the then available hereditary endowment disappears with the appearance of every child, it follows that there must be on the average at the very least two children in each family—there really must be three or more—if the stream of life which is thus being passed on to future generations is not in time to run quite dry. Those stocks in which families are deliberately restricted to less than three are at each generation failing to transmit a large portion of their natural qualities to their descendants, and posterity really should not look upon them as forming part of their ancestry. As to those who have a right to review their family history with any satisfaction and who are nevertheless using contraceptive methods so freely that their blood must necessarily be thus watered down by interbreeding with other stocks, they are in fact refus-

ing to serve their country in the distant future in the way now most certainly open to them. They are shirking a primary duty, for they are leaving to others the task of filling up the invisible gaps in the hereditary ranks of futurity; and this is to act like deserters in the fight for racial progress. This is a hard saying, over which I hope that young America will ponder; this, and the opposite truth that to bring into the world children likely to be below the average of their nation in natural qualities, is also to be condemned as definitely unpatriotic. Here I would add that certain economic problems in connection with the financial strain now thrown on sound families of adequate size are in urgent need of consideration in order to prevent praiseworthy parental foresight from causing racial damage.

I should like also to express the hope that eugenic organizations will restrict their energies to those questions which are primarily concerned with the inborn qualities of future generations; my reason being that unanimity, and consequently progress, are more probable the more clearly limited is the field covered by each society. To take a single instance, divorce had better be ruled out of our list of subjects for consideration, because the immediate social consequences of any proposed reforms in connection with the laws concerning marriage would be both more important and more calculable than their ultimate racial effects. In regard to family life generally, perhaps the most important object apart from eugenics is that as many children as possible should be brought up in homes where they come under the influence of both a father and a mother; and if such an aim can be but very imperfectly realized, this affords no argument against its being made the goal of our endeavors. Moreover, in considering such social problems as these, it is generally the broad effects of changes likely to be brought about in the mental attitude of the mass of the population which should mainly be held in view; whilst it is often forgotten that too

much attention should not be paid to exceptionally unhappy marriages, for to give undue consideration to hard cases makes for bad eugenics. Now to allow divorces to be very easily obtainable would bring to the minds of all the idea that the breaking of the marriage tie must be regarded as a highly probable contingency, and this is a mental attitude which in itself greatly tends to increase the probability of separations taking place. In the absence of such thoughts, temporary difficulties would be far more often overcome, and the family would more often remain united. Divorce must be neither very easy nor very difficult if this highly important aim in regard to married life is most likely to be realized, that is, its continuance unless the conditions become really harmful.

Perhaps I may add that if compelled to regard divorce solely from the eugenic point of view, I should come to the same conclusion, though with less confidence. The more probable separation appears to be, the more will family limitation be practised; because the thought would more often arise that when living apart children would be likely to become a serious encumbrance. And if the birth-rate were thus to be lowered, it would be lowered most amongst the foreseeing and the prudent and least amongst the stupid, reckless or improvident. Free divorce would, in fact, tend to increase those differences in the birth-rate which now constitute the greatest danger to our race.

The eugenic point which now most needs emphasizing in connection with family life is that no marriage is undertaken without incurring material risks; that these risks should be studied in advance so as to lessen the number of unwise unions; and that when the risks involved have been definitely accepted, a great deal should be endured for the sake of maintaining a united family, that is for the sake of the children already born and *to be born*. Divorce is often both cowardly and unpatriotic.

The aim of eugenics being to lessen the fertility of all inferior stocks, whilst increasing the fertility of all the superior, we should seek for some method of deciding in which of these two equal divisions any individual should be placed. This is another problem presenting many difficulties, to which I hope careful attention will be paid in America, especially by its medical men. In deciding this question, the good qualities must always be weighed in the scales as against the bad, this being a point often overlooked in practice.

To conclude, though much progress has been made in recent years in eugenics, yet wide gaps still remain both in our theories and in our practical proposals. The International Eugenics Congress of 1921, held in New York under the presidency of Henry Fairfield Osborn, did much to promote a forward policy in racial matters; and I am confident that the Congress of 1932, in the same city, will carry on this good work in a way not only to bring great credit to the United States but also to help to spread the light over the whole world.

LEONARD DARWIN

August 22, 1932

CONTENTS

CHAP.		PAGE
I.	DOMESTIC ANIMALS . . . . . Attention to breed—Unconscious and conscious selection—Breeds of dogs, cattle, etc.—The farmer's knowledge.	1
II.	MAN'S ANCESTORS . . . . . Improvements in mankind—Evolution and development, parallel processes—Struggle for existence—Natural selection.	5
III.	OUR SURROUNDINGS . . . . . Acquired differences—Mutilations—Effects of education—Social contact—Large families and poverty.	10
IV.	HEREDITARY QUALITIES . . . . . Differences in mind and body at birth—Twins—Qualities of descendants—Regression to the mean.	16
V.	EUGENIC METHODS . . . . . Stockyard methods—Overcrowding—Murder—Compulsory marriage—Birth rate, not death rate—Risks inevitable.	21
VI.	THE MEN WE WANT . . . . . Elimination of defectives—Supermen—Inferior castes—Men judged by performance—Equality never obtainable.	25
VII.	INFERIOR STOCKS . . . . . Elimination of unfit—Compulsion or persuasion—Rare diseases—Insanity—Epilepsy—Consumption—Doctors' advice.	29
VIII.	BIRTH CONTROL . . . . . Checks on population—Family limitation—Continence—Contraception—Effects on health and morals—Dual campaign.	34

CHAP. PAGE

IX. STERILIZATION 39

Nature of operation—Not as punishment—Not compulsory — Promiscuous intercourse — Rapidity of results—Californian experiences.

X. FEEBLE-MINDEDNESS 44

Numbers — Causes—Heredity—Segregation—Guardianship—Sterilization—Marriage—Mental Deficiency Acts.

XI. THE HABITUAL CRIMINAL 50

Causes—Removal of children—Feeble-minded criminals — Reformatories — Training — Imprisonment — Segregation—Sterilization.

XII. WHO PAYS THE BILL? 56

The Unfit—Taxation—Private charity—The inferior —Social contagion—Output of goods—The employable—The unemployed.

XIII. THE DETERIORATION OF OUR BREED . . 62

Differential birth rate — Multiplication of poorer classes—Effects produced—Conditions new—Decay of ancient civilisations.

XIV. EUGENICS IN THE FUTURE 68

Elimination of the inferior—Public assistance—Right to parenthood—Warnings as to size of family.

XV. BIGGER FAMILIES IN GOOD STOCKS . . 74

Small families — Character and wages — Morals and patriotism—Luxury—Ambition—Children's welfare—Highly educated women.

XVI. FINANCIAL AIDS TO PARENTHOOD . . 79

Larger families, their causes and how to promote them—Family allowances—Income tax—Salaries—Scholarships.

XVII. SELECTION IN MARRIAGE 84

Benefits and disadvantages—Opportunities for meeting—Marriage with good stock—Cousin marriages—Medical certificates.

CHAPTER I

Domestic Animals

WHEN the time comes for the old dog to die and when with sorrow we shall have to replace him, will not the breed of our new companion be our first thought? Farmers in all ages of which we have any records, and in all countries, have paid great attention to the breed of all their flocks and herds. Owners of cattle have always known that care in the selection of stock for breeding purposes will pay them well in the long run. Do not all who keep poultry discuss the relative merits of Leghorns and Light Sussex, or of whatever may be the favorite breeds at the time? Pigs, pigeons, canaries, bees, to say nothing about vegetables—ask those who take a practical interest in rearing them what would be the chance of anyone winning a prize who was careless as to breed. Lastly, the publication of stud books proves what careful consideration is given to the performances of the ancestors of existing horses. And if men, however savage or however cultivated, have always given so much time to the study of the breed of the animals they own, why have they not paid equal or more attention to their own breed? Before a marriage is contracted many questions may be asked as to the amount of money likely to be inherited by the bride, while no consideration is usually given to the qualities of mind or body which she is likely to pass on to her children—to her breed, in fact. The aim of eugenics is to prove that the breed of our own citizens is a matter of vital importance when considering the future welfare of our country.

First of all let us see what advantages have actually been gained for man by improving the breed of his domestic animals, and how these improvements have been

brought about. All our dogs are descended from some wild wolf-like ancestors, who had been captured when young and tamed. Those with the wildest natures often ran away, and became wild animals again. Some of the naturally tamer animals could be kept, but when they failed to follow our savage ancestors out hunting, or when they turned sulky or unsociable, or when they bit a child in the camp, they were often promptly killed. This may be described as unconscious or unpremeditated selection. It has been going on for several thousand years, and it has had wonderful effects. The wild ancestors of our dogs were ready enough to attack a man if found at a disadvantage. Our dogs of to-day, their descendants, are our most faithful companions. Their affection for men is so bred into them that they pay much more attention to us than to other dogs.

The effects of the *deliberate* efforts which have long been made to breed better animals have been even more remarkable than the effects of this *unpremeditated* selection. All savages are known to pay some attention to breed. As it was obvious that it was the swiftest hound of the pack which succeeded in running down the hare or the rabbit, it was that dog which was selected by primitive man for breeding purposes. This went on century after century, with the result that in time the greyhound of to-day made its appearance. When our ancestors wanted protection for themselves or their herds, they looked more to strength and weight when selecting for breeding; and in consequence many stronger kinds of dogs were produced at the same time as the greyhound. When it was a creature to pet that was desired, dogs like the Chinese chow slowly appeared as if in answer to this demand. The differences between all the innumerable breeds of dogs—bulldogs, pugs, mastiffs, terriers, bloodhounds, poodles, lapdogs, etc.—are probably partly the result of the differences between the wild animals which were tamed originally. But this extraordinary diversity of form is really mainly due to the different ideals in the minds of the men who

bred them, and to the slight differences in the individuals selected in consequence for breeding purposes generation after generation.

The contrast between cats and dogs is also instructive. The cat's nature leads it to wander out at night, and its habits make control over its breeding very difficult; and such breeding is, therefore, but little attended to. In consequence, as compared with dogs, fewer different breeds of cats have been produced, with less marked differences between them. Then, again, cats are chiefly useful for killing mice at home. This they can do in their master's absence, because he does not want to eat the mice himself. Hence obedience to a call has not been bred into them. Lastly, what brings the cat home in the morning after its wanderings in the dark is the desire for shelter and warmth. It was those cats which felt this desire for comfort most strongly who least often deserted the camp to become wild animals. The result of this unpremeditated selection going on for ages has been the production of the comfort-loving, unsympathetic animal we all know so well.

The effects of selection in bygone times are also seen clearly in our cattle of to-day. In the days of our ancestors of long ago, the poor milker was often killed for food, while the cow producing more milk was retained to supply the family. It was only the better milkers, therefore, who had calves; and these calves passed on to their descendants their powers of producing milk in bigger quantities. No doubt this kind of unintentional selection in some degree improved the breed in regard to milk-giving. In our day, however, deliberate selection is being carried on with the greatest forethought and care. A bull is valued for breeding purposes in accordance with the milking qualities, not only of its female ancestors, but also of the cows which he has already produced as his offspring. African savages have tame cows which are known to have produced not more than two or three pints of milk a day; and this may be more than that produced by wild cattle. A good milker may now produce forty pints a day, this

increase in amount being the result of deliberate care taken in breeding.

The egg-laying powers of poultry have been improved much in the same way as the amount of milk given by cows. The singing of canaries tells much the same story. The differences between the breeds of horses, with the cart horse and the pony at the two extremes, are with little doubt due in some measure to different wild animals having been caught and tamed in bygone ages. But the differences between these wild animals have been immensely increased by man. In the case of pigeons, the existing breeds, including such apparently different birds as the pouter and the fantail, have all descended directly from the one wild form, the rock dove. Why they now differ so greatly is because in breeding them the fancier had no useful purposes in view, and had only his fancy to guide him. A study of pigs, sheep, duck, and even bees, would also illustrate the wonders that can be accomplished by care in breeding.

Those who live in towns have not as good opportunities of studying animal life as have the farmers of to-day or as had their ancestors. Farmers learn much by their own personal experience. They may have learnt even more in consequence of the traditional knowledge acquired in their families in times gone by having been passed on to them by their fathers when they were lads. Farmers are not always right when they try to explain things; but when they talk about the advantage of attending to breed they are talking about what they know. It is not the business of farmers as such to apply to their fellow citizens their knowledge as to breed. But should not we ask ourselves why we should not try to improve mankind by somewhat the same methods as those which have worked such wonders with domestic animals? Is it not folly altogether to neglect the experience gained by breeders when we are thinking of the needs and the shortcomings of our own nation? These are the questions which eugenics aims at answering.

CHAPTER II

Man's Ancestors

SOME persons will reply to what has just been said by declaring that man is not an animal. They will add that it is, therefore, worse than useless to look to the breeding of pigs and sheep when seeking for guidance in our own affairs. A word or name is, however, in many ways, like a label. You can tie it on to anything or tear it off again, almost at your pleasure. If you choose to attach the label of "animal" only to what are generally called the lower animals, then you may say if you like that man is not an animal. You will, however, learn nothing whatever about man merely by considering the name you give to him. We must look at things themselves, and not at the labels attached to them. What we want to know about mankind is whether it is likely that the human race would be benefited in the future by care being taken in regard to breeding; that is, in the same way that domestic animals have certainly been improved in the past. This is the question to be asked and answered.

As to the lower animals, all students of science now believe that if we could trace their ancestry backwards, offspring to parent, generation after generation, for an immense time, we should see that they were all descended from some common stock. All the lower animals are, in fact, very distant cousins. And, being thus related, it is natural that they should all be improved in like manner by care being taken in the selection of the individuals that are allowed to breed. Is man their cousin also? There is no good reason why he should be excluded from this great family group, and he is not so excluded by those who have looked into the matter carefully. We are of common descent with the lower animals, and with us, as with them, wonders could be effected by breeding.

The existence of this blood relationship between man and the lower animals was, it is true, nearly universally denied but a short while ago. Many who have not studied the question deny it still. Then what has brought about this wonderful change of opinion amongst the students of science? Many reasons can be given in favour of this belief in the common descent of all animals; but these reasons can be thoroughly understood only by reading some of the many books on the subject. In these works it can be learnt that it is in the oldest rocks that the remains of the most simple or primitive creatures are found. It is only in those parts of the ground beneath us which were laid down in more recent times that there exist fossil remains of creatures at all like those which now surround us. Living things have evidently appeared on earth in such a way that what we call the highest came last. Then, again, animals which are found living near each other when wild are more like each other than animals that live far apart. If the body of the unborn babe is examined, it is found to contain parts which seem likely to develop so as only to be useful to animals living in water. These useless parts are like relics indicating the kind of life lived by our remote ancestors: they cannot have been put there merely to puzzle us.

When studying all the living beings we see around us, students of science have, in fact, been at work at a kind of great jigsaw puzzle. They have found that the pieces will fall into their places only if it is assumed that a blood relationship exists between all animals, including man. In this way hundreds of previously unexplained facts, such as those above mentioned, can now be explained. It can, therefore, no longer be denied that man has descended from some ape-like ancestor. We must accept this as a fact in framing our social policy. And this change in our beliefs has no doubt amounted to a revolution in thought. All such revolutions must have some effect on our actions.

The strongest opposition to this belief in the lowly ancestry of man is based on religious scruples. All such scruples must be treated with respect, provided we do not flinch from stating what we ourselves believe to be true. Every man who condemns this belief in the evolution of his race should remember that he himself unquestionably has developed from a small jelly-like object, very like some of the simplest creatures now living on earth. From such an apparently simple germ each one of us developed before birth into something shaped like an animal which could not be distinguished from a pig or a sheep when at that same early stage of development. After birth we were for a time far more helpless and far less intelligent than a monkey. As children we had little self-control. Every individual man has gone through a process of development which in some respects resembles the way in which the race of man has sprung from some lowly kind of living beings. Since no one can deny his own development, no one thinks of being ashamed of it. Why should we be any more ashamed of the somewhat similar descent of our race from some bygone race of primitive ancestors? Should we not rather rejoice at the thought that we have been so long on the upward march?

Granted that all the different kinds of animals which have appeared on earth in the past were descended from some older kinds by the ordinary methods of reproduction, we next must ask what it was which brought about this slow change in their appearances and habits. Here again the story is too long to tell in full. Only a few main points can now be mentioned.

When food is short the numbers of any kind of animal will be reduced by starvation. When food is plentiful, on the other hand, there will be an exceptional increase in numbers. But, generally speaking, the numbers of any kind of wild animal do not alter greatly as time goes by. Now, when numbers are not changing, and when one couple die, they must be replaced by one other couple, no more and no less. If each couple had two offspring,

and if both of these offspring grew up and in time also reproduced their kind in like manner, numbers would be kept just even. As a rule, however, every animal has more than two offspring, generally many more. And when, in the past, numbers have not been increasing, all the offspring over two must on the average have been got rid of before pairing, somehow or other. How has this been brought about?

This keeping down of numbers has been the result of what has been called "the struggle for existence." This is not a very good name; for the killing off of animals in fights with other animals has not been the most important way in which their numbers have been held in check. Many more have died as the result of accident, disease, and want of food. Some have failed to get a mate, and have consequently left no progeny behind them. The result of these innumerable deaths and failures has been that the numbers of the different races of animals have been kept from altering greatly. Now, some of these animals were slightly superior to their fellows in some way which gave them an advantage in this so-called struggle for existence. It was these slightly superior animals who had the best chance of survival and of reproducing their kind, and who most often did so. They were picked out by what has been called "natural selection."

Life has existed on this earth for perhaps a thousand million years. During all this time the best or the fittest animals have been selected, as it were, in this way for breeding purposes. We have seen how our savage ancestors, without always giving the matter any thought, generally bred from the dogs who actually succeeded best in the chase. The result of this partly unpremeditated selection was that in the course of a few thousand years a wolf-like animal slowly changed into a dog something like our greyhound. The survival of the beings best fitted to their surroundings during an unthinkably long period of time has led in a somewhat similar manner to some lowly animal gradually giving rise to man.

This is the process which has been called "evolution by natural selection." This is how, in my opinion, the changes which are known to have taken place in animals in the course of past ages have been brought about. Some scientists do not attach quite as much importance as this to natural selection : all of them, however, hold that it has had great effects in the past. And all agree, therefore, that if selection can now be applied to the human race, in a somewhat similar manner, it will have wonderful effects on future generations. A belief in evolution opens out before our eyes possibilities of almost unlimited improvement in the lot of mankind in the distant future. We are also thus led to see that those who care for the future welfare of their country should make it one of their main aims to attend to the breed of their race. And eugenics tells us in what ways we can do this.

Chapter III

Our Surroundings

WE have seen that if animals showing good points are selected for breeding purposes, generation after generation, the result will be an improvement in the breed. This is because any good point noted in a parent as a rule will reappear to some extent amongst its descendants; or, in other words, it will generally be inherited. We have thus far accepted this as a fact merely because it is a matter of common knowledge. Doubts and difficulties are, however, constantly being raised when it is proposed to apply this knowledge in human affairs. Something must, therefore, be said to make this certainty doubly certain.

As we have seen, every human being is developed out of a minute germ. These germs are at first quite indistinguishable from each other in appearance. Nevertheless, putting aside the case of twins, who resemble each other closely, now often called identical twins, no two germs are ever exactly like each other. And the differences between the germs are such as to give rise to differences between the individuals developing from them. Since no two germs are alike, no two human beings are alike either. And the differences between men, which result from differences between the germs from which they originated, are known as hereditary differences. If one man has blue eyes and another brown, this is as good an example as can be given of an hereditary difference.

These are, however, not the only kind of differences which exist between human beings. Men meet with different surroundings as they are developing from their originating germs and, indeed, during all their lives. The surroundings to which men are exposed may leave an indelible mark on them, and may thus make them differ

permanently one from another. Probably no two human beings would ever remain exactly alike, even if the germs from which they all sprang were identical. And these differences between men, which result from differences in the surroundings to which they had been exposed, may be called acquired differences. If one man had been exposed to the sun more than another, the resulting difference in appearance between them would be an acquired difference.

When we study any particular difference between two men, we shall nearly always be led to believe that it is due partly to a difference between the germs from which they sprang, and partly to differences in their past surroundings. It is generally, therefore, very difficult to say what part of any human quality or character is acquired and what is inherited. It is, nevertheless, very important that we should get clear ideas as to the differences in the behaviour, so to speak, of these two kinds of differences. With this object in view, we shall discuss acquired differences in this chapter, leaving inherited differences for consideration in the following chapter.

Now, the first question we have to ask about those differences between human beings which we have described as being acquired, is whether they are passed on by natural inheritance to succeeding generations. Do good surroundings and good training tend to improve the actual breed of man? Will the descendants of well-cared-for and well-educated human beings show any *natural* superiority in consequence of this care and education? This is known as the question of the inheritance of acquired characters, and it is still one which is to some extent in dispute.

In the first place, it is universally agreed that the results of accidents or mutilations are not inherited. The soldier who lost a leg in the war, or who sustained any other injury, need have no fear that his children will be in any way inferior because of his misfortune.

As to the more general question, the following is the kind of enquiry to which an answer is needed. If one of a pair of identical twins becomes a blacksmith and the other a

clerk, will the son of the blacksmith be more likely to have good muscles than the son of the clerk? Or again, if one twin becomes a criminal after having been brought up in evil surroundings, whilst the other, coming under no such harmful influences, commits no crime, will the son of the criminal, even if removed from bad surroundings at birth, be more likely to become a criminal than his cousin whose father remained honest? The answer given to-day by the majority of scientists is that neither the strength of the blacksmith nor the criminality of the criminal will tend to reappear in their descendants *merely because* the one exercised his muscles to an exceptional amount, whilst the other failed in consequence of being exceptionally tempted. The descendants of the blacksmith will be no stronger, and the descendants of the criminal no worse, than the descendants of their identical twin brothers, whose muscles and morals had not been thus exceptionally affected. It is true that some scientists hold that there will be very slight inherited effects in such cases. It is generally agreed, however, that those inherited effects will be so small that they may be safely neglected when considering practical human affairs. And this, therefore, may be our final verdict with regard to the inheritance of acquirements.

This conclusion is no doubt contrary to the beliefs of the man in the street. Here, then, we must decide whether we should place our trust in those scientists who have studied these questions for years, or whether we should be guided by men who have never given the matter any systematic thought. If we decide to trust to science, the care and education which are being given to-day to our fellow citizens must not be relied on as practical methods of improving the actual breed of our nation in the coming generations.

Then why is it, we may be asked, that drunkenness, for example, is to be noted so often generation after generation in the same family? Is not this obviously because the man who first gave way to drink passed on this evil habit by inheritance to his descendants? This sounds

common sense, but it is not the true explanation. Two other explanations have to be considered. In the first place, a son is apt to imitate his father, and the mere fact that a father drinks is likely to increase the chances of his son doing so also. In the second place, the first drunkard in any family of whom we have any record may have inherited from his ancestors some hereditary weakness which made him especially ready to give way to this amongst other forms of temptation. He may have passed on this weakness to his descendants; a weakness which made them also in their turn especially liable to become drunkards. These are the real reasons why drunkenness sometimes runs in families.

We have said that care in regard to the surroundings of man will not improve the breed of his race. But let there be no mistake. This does not mean that our surroundings are of little importance to us. Training, education, health, housing, culture, recreation, etc., are obviously of the greatest importance; because it is only by paying attention to them that those now on earth can be made to lead happier and nobler lives. Moreover, the benefits resulting from education will to no small extent be passed on by tradition to future generations. All that is here to be noted about these admirable methods of improving the lot of mankind is that the label "eugenics" is not attached to them. They can, however, be pursued just as well without that label.

It may be said that to improve the surroundings of the people is the quickest way of benefiting them, and that this, therefore, should be our first aim. There is no doubt some truth in this. But experience should teach us how difficult it is to improve surroundings at all quickly. In any case, the possibility of doing good in one direction is generally the worst of all arguments against trying to do good in another direction. Steps can be taken which will result in an improvement in the breed in future generations at the same time that improvements in surroundings of those now on earth are being promoted.

Thus, when studying the effect of surroundings we are not studying eugenics. But such studies, as we shall see, have important indirect bearings on our subject. When groups of men have free dealings or intercourse with each other, this we may describe as social contact. Now social contact is never a one-sided affair. When a group, which is morally or mentally superior in any way, comes in contact with an inferior group, that inferior group will be benefited by that contact. The superior group generally realizes this quite sufficiently. But it is equally certain that the inferior group tends to drag down the superior, and this is a fact which is often overlooked. Social contact, no doubt, tends very slowly to bring all the groups affected to a common level or condition. And that level will be above the bottom and below the top. Social contact always has a levelling effect.

Now, persons living in poor homes cannot have the same opportunities of improving their minds as have the well-to-do. As a rule, the children of the day labourer, for example, must be at some disadvantage as compared with the children of the skilled artizan. No doubt all that is practicable should be done to put the different classes on an equality as regards such opportunities; provided that the results would be on the whole beneficial and not demoralizing. But reforms of this kind often do good but very slowly; and we may ask whether some other methods of improving the lot of all classes cannot be simultaneously set in operation.

Families appearing in poor homes are at the present time larger than those found amongst the better paid classes. As compared with the parent generation, the children born in better-equipped homes are, therefore, outnumbered by those coming from worse surroundings. The result of social contact between the classes must in consequence now be a downward drag on the nation as a whole in regard to all qualities thus affected. Ought we not to try to reverse this state of things? If the well-to-do had the big families and the poor the small ones,

those children with superior opportunities would outnumber those less fortunately situated. In such circumstances, social contact would continually tend to raise the level of the whole nation.

Moreover, if the families of the poor were to be smaller, other good results would follow. Much misery would thus be saved. Taxation would be lessened because there would be less pauperism. On the other hand, larger families amongst the well-to-do would result in a wider and, therefore, more even distribution of wealth. For all these reasons, there would be less discontent and less political animosity. This again would improve the industrial situation, and consequently lead to a higher standard of living all round. Thus we see that, when looking only to the more immediate effects of human surroundings, all the advantages mentioned in this and the preceding paragraph would be felt if, for example, day labourers had smaller families and artizans and the well-to-do generally had more children. And in the following chapters we shall see that it is also in this direction that we should move if we wish to improve the actual breed of the race. All social reformers ought to be able to co-operate in the promotion of reforms aiming at these results.

Chapter IV

Hereditary Qualities

IN the last chapter it was said that men are not all born alike. It was declared that the germs from which we spring differ one from the other, with the result that as grown men we also differ amongst ourselves. But what proof is there that any of the differences between us can thus be explained? May not all our differences be the result of the differences in the surroundings to which we have been exposed?

All will agree that we can do nothing to stop a man having red hair or blue eyes if, when born, that seems to be his fate. Such peculiarities as these evidently depend on something which was in existence when the man possessing them was born. And this is equally true of many other bodily qualities. Men are certainly not all born alike as far as their bodies are concerned.

Men also differ amongst themselves at birth as regards their minds, or rather as to what their minds will become; though this is not so easily proved. In this matter we can, however, appeal to common sense. Let anyone look back at his school-days, and he will readily admit that some of his school-fellows could beat him not only in strength of body, but in strength of mind also. And it is evident to us now that the superiority of the minds of some of our young companions had little if anything to do with any superiority in their surroundings. As to some other boys, we know equally well that we should never have behaved as badly as they did under any circumstances. Our common sense tells us that some of the differences that we noted between our schoolboy friends depended on something which was not affected by external conditions.

If a more scientific proof that men are not all born alike is demanded, it can be obtained by a study of identical twins. The great likeness often existing between twins is not to be explained by a likeness between their past surroundings. This we know to be the case because twins who were separated soon after birth, and who lived very different lives, have often remained extraordinarily alike. The only satisfactory explanation which can be given of the great similarity between identical twins is that they sprang from one and the same germ. Whatever small differences there are between what are called identical twins may, no doubt, be explained by differences in their past surroundings. But ordinary brothers are exposed to nearly the same differences in surroundings as are twins. Brothers who are not twins cannot, therefore, differ from each other much more than do twins *because* of the effects of their past surroundings. To whatever extent ordinary brothers differ more than twins, to that extent some other explanation has to be found for these extra differences between them. And no explanation can be suggested for these differences except that they are due to the differences which existed between the germs from which the brothers sprang. We thus get a rough measure of those differences existing amongst the members of any one family which can be traced back to their originating germs; differences which may be called hereditary differences.

Here a point may be mentioned which has puzzled many persons. How is it possible for persons belonging to the *same* family to show *hereditary* differences? If brothers do differ widely, does not this prove that heredity counts for little? Now the qualities of both a father and a mother are to some extent, as it were, passed on to and then carried by the germ out of which their son originated. But the son will pass on more of his father's qualities and less of his mother's to one grandchild than to another. The grandchildren will in consequence differ amongst themselves. And this they will do although the whole of their qualities may have been derived without change

from their grandparents. Hereditary qualities, when transmitted to another generation, remain unchanged; though they may be sorted out differently. Somewhat the same bodily and mental qualities will often keep cropping out in successive generations, and yet members of the same family will differ considerably amongst themselves. Fact and theory hang together perfectly.

The fact that each hereditary quality of any individual is passed on to some but not to all of his descendants shows its results in the following way also. We have seen that we cannot foretell what will be the qualities of a man before he is born. But if we know the qualities of his near relations we can tell a good deal about what his qualities will *probably* be. This means that, though we should make many bad shots, we should be generally far nearer the truth than if we went by chance.

Perhaps a single example may make this point clearer. Let a thousand fathers be selected, all four inches above the average height of the nation as a whole. Now, we cannot know what will be the height of any one of the sons of these fathers. We do know, however, with considerable accuracy that if a large number of these sons were to be measured, they would prove to be *on the average* two inches above the average height of the nation, or about half the excess of their parents. And this is true of most or all other qualities that can be measured. This being the case, when a farmer is breeding cattle, he is often disappointed in regard to particular beasts. He never doubts, however, that by care in breeding he will raise the qualities of his stocks to some extent. And this is equally true as regards the breeding of men.

We have seen that the sons of fathers selected on account of their height, though tall, will not be as tall as their fathers. This fact is known as the regression to the mean. Now, this regression does not continue beyond a certain point. It does not destroy the benefits arising from selection in breeding. If a number of tall sons and daughters of a selected group of parents were to be kept as a caste

apart, the height of their descendants would not continue to diminish as the generations succeeded each other. Thus it is true that, when a selection of exceptionally good stock is made for breeding purposes, the next generation will not come quite up to that high level. But this does not prevent it from its being also true that selection in breeding always produces some good results on the stock taken as a whole, in spite of this partial regression to the mean.

What we have been discussing may be described as the laws of natural inheritance or of heredity. More and more is being found out about these laws, this being the result of breeding experiments and statistical enquiries. The way in which germs unite has also been watched under the microscope, and the conclusions arrived at by experiments in breeding have thus been confirmed in a wonderful way. The impression left on the minds of students of science is that natural inheritance always proceeds in a perfectly orderly and regular way. What has happened in the past will happen again in the future under the same circumstances. The laws of heredity can be relied on with complete confidence.

From all this we know for certain that the natural qualities of parents will reappear amongst their descendants to such an extent as to enable us to foretell in no small degree the characteristics of the coming generation. This is true of mental and bodily qualities, and of good and bad qualities. Is it not, therefore, worse than folly to allow parents with bad natural qualities to have more children than those who are better endowed? Eugenics seeks to lessen this folly in the future.

Of course, the germ from which any one of us originated cannot be changed. It is impossible to go back on the past. But if the hereditary qualities of every one now living may be said to be dependent on a germ which is unalterable, is not that rather a hopeless outlook? This question certainly needs an answer. Our heredity can best be compared to a fixed anchor, to which we are tied by a cable. But the cable which ties us to this fixed point

is elastic. By further efforts, or by being placed in better surroundings, our lot can always be improved somewhat. In all circumstances the cable tying us to our hereditary anchor can be stretched a bit more by pulling harder. This is so, although it would be practically impossible to go on lengthening it for ever. In the same way, we vaguely know that, as regards all things that we are striving for, there is a limit beyond which we cannot expect to go. Yet this practically unattainable limit to our hopes should not and does not fill us with despair.

If we look to future generations, however, another story has to be told. If an improvement in the breed of the race comes to be made, this will be as if those who come after us will find their anchors of heredity cast further in advance. Such an improvement in natural qualities would mean that our successors would have a better start in life. They would be able to do as well as we have done with less exertion. With efforts equal to those which we have made, their lives would be more profitable than ours. The cables attached to their fixed anchors would not drag them back to the same extent. With no more trouble than we have taken, they would be superior to us in mind and body. That these results in the future can actually be obtained by reforms adopted to-day is the hope held out to us by eugenics. Is not this an inspiring hope?

CHAPTER V

Eugenic Methods

IT has been suggested in a previous chapter that man is a domestic animal, and that, even as regards human affairs, something can be learnt from the farmer because of his knowledge about breeding. On reading this, some may hold up their hands in dismay, and without further thought condemn any imitation of the methods of the stockyard.

First of all it may be noted that some stockyard methods are certainly not to be despised. If you inspect any good establishment you will find that the animals are well housed; that they are fed with suitable food in quantities neither too small nor too great; and that they are carefully guarded against infection. Should not we be glad if the same could be said about our slums?

Then, again, another useful practical lesson has often been impressed on the minds of those who have had the management of large stock farms in the Dominions. Experience has made them clearly realize the "madness" of going on breeding more animals when the ranch is already fully stocked, and when the surplus stock cannot be readily disposed of. This is a stockyard lesson which may well be remembered when considering at what point our own islands should be held to be over-populated.

In another direction also we may well imitate the farmer's frame of mind. When the question before him is how to stock his farm in the future, as a matter of course he looks to breed above all things. When taking thought as to the animals he already possesses, he concentrates his mind on their surroundings and their training. No doubt he considers how best to spend his money. But the point is that it never even occurs to him not to attend to both breed and

surroundings. In human affairs the need for attending to the immediate wants of our fellow citizens has constantly been made an excuse for altogether neglecting the consideration of the breed of future generations. In this matter the farmer can teach us the invaluable lesson that we should always strive to advance in both directions. The farmer hopes that he will come to possess well-trained horses of good breed. We ought to have similar hopes in regard to the citizens who will constitute our nation in the future.

It is, of course, easy to push this comparison between man and domestic animals too far. The farmer will no doubt train his horse as well as he can. But in doing so he is only improving that one horse. When we educate our children, on the other hand, we know, or we ought to know, that we are benefiting not only them but also all who come in contact with them, including their children. This is because learning is passed on from one to another by word of mouth and by books. It is true that nearly all such accumulated learning—or, in other words, civilization—has at times been destroyed by wars and internal strife, this being especially likely to happen if the breed has been previously deteriorating for some time. This is what occurred when the greatest period of learning and luxury in ancient Rome was followed by the Dark Ages. And in this danger we can find a strong argument in favour of attending to breed as well as to surroundings. Improvements in breed cannot be wiped out all at once in any way. This is because such improvements take place in the very nature of man himself, and are passed on to future generations by an infallible natural process. And, as we saw in the last chapter, the effect of improvements in breed would be to make the men who will come after us rise to higher levels than those which we have been able to reach in like circumstances.

What has here been indicated is that certain useful lessons can be learnt from the farmer. But when we come to consider those methods which are generally associated

with the word "stockyard," we see that they must be repudiated altogether in human affairs. The farmer may kill off his inferior stock; whilst no one advocates putting both the unwanted kitten and the inferior baby into the tub in the backyard. To argue against such proceedings is a waste of time. Compulsory marriage is equally out of the question. It is true that both infanticide and the subjection of women have been common enough in many countries and in all ages; but they will never be reintroduced into civilized countries. A highly developed moral sense and great freedom of choice are two of the most precious attributes of man, and the necessity for preserving them rules out these stockyard methods.

The main lesson learnt from a study of domestic animals is, in fact, that the descendants of good stocks are always on the whole naturally superior to the descendants of inferior stocks. This is true of all animals, man included. And from this it follows that, in order to improve the breed of our race, we should now take such steps as would result in all who show any natural superiority producing a greater number of descendants than at present, whilst making all who are definitely inferior pass on their natural inferiority to as few as possible.

As regards the superior stocks, a reduction in the number of deaths amongst them would, of course, increase the number of their descendants. We may, however, be sure that efforts will continually be made in this direction. The special aim of eugenics is, therefore, to increase the size of the families of such stocks. As to the inferior types, we cannot, as we have seen, reduce the number of their descendants by the simple expedient of murder. All that can be done is to lessen the size of their families.

It has often been urged that our scientific knowledge is not now enough to make it right to take any practical steps in the directions above indicated. Certainly further knowledge should be sought in all directions. But we do know that human beings differ from one another at birth to a very considerable extent. We also know for certain

that all endowed with any natural superiority will pass on some of their good qualities to some of their descendants. We know that this is equally true of harmful qualities. And this knowledge is all that is needed to justify us in assuming that the lot of mankind in the future would be improved if steps were now to be taken which would result in a lowering of the birth-rate of all the naturally inferior types, and an increase in the birth-rate amongst the naturally superior. To introduce reforms having these effects is the aim of eugenics; provided that the moral attributes of man are always duly safeguarded.

It may be said that these islands are over-populated, and that consequently no steps should now be taken which would tend to increase the birth-rate of any section of the people; for that would tend to increase our already too great numbers. But there would be no increase in numbers if any increase in the descendants of the superior stocks was counter-balanced by an equal decrease in the inferior strains. In any case, to impose some immediate suffering as the result of over-population might well be justifiable if it would lead to an enduring improvement in the natural qualities of the race. It is by the adoption of eugenic reforms to-day that the reputation and happiness of our nation in the future can most certainly be promoted.

Moreover, all reforms involve some risk. To do nothing is, however, often the course which involves most risk. The world is never really standing still; and to leave things alone may be merely to drift on to unseen rocks ahead. The bogey of dangers in the path of progress is often raised by us from an unconscious desire to save ourselves the trouble of making up our minds and of beginning to move in new directions. If science points clearly to certain steps which could now be taken in order to benefit our nation in the future, do not let us fail to move in that direction out of a selfish regard for our own comfort. Eugenics calls upon us to include all future generations amongst our neighbours; that is amongst those for whom we ought to be prepared to sacrifice our own immediate interests.

Chapter VI

The Men we Want

IF our object is to try to improve the breed of man, should we not first of all decide on the kind of man most to be desired? To fix on all the qualities of the ideal man would probably do more harm than good, because to do so would be more likely to discourage than to encourage us in our efforts. Something must, however, be said on this subject.

We can at all events assert that there are many kinds of men that we do not want. These include the criminal, the insane, the imbecile, the feeble in mind, the diseased at birth, the deformed, the deaf, the blind, etc., etc. How to lessen their numbers will be considered in later chapters.

It has been suggested that, whilst getting rid of these extremely undesirable types, we should endeavour to create a group of supermen at the other end of the scale. If a few perfect individuals were to appear on earth, and if their perfection were to be acknowledged by all, this would be very good. These supermen would rule over us to our great contentment. This idea is, however, utterly unpractical. The desire to dominate or lead other men is a very deeply-seated quality. It would be very difficult, and not altogether beneficial, to get rid of it. This being the case, any group of supermen appearing in our midst would probably bully or harass their fellow citizens, until the mob rose up and drove them from power or exterminated them. The creation of supermen is to be condemned because it would lead to either tyranny or rebellion.

Neither should our aim be to create various inferior castes of human beings, such as would be especially adapted to do the dirty work of the world without complaint. No doubt

such a plan may seem attractive to those who consider it certain that their own descendants would not be included in any such caste. Slavery is now condemned because it is always demoralizing to the slave owner, as well as being generally cruel to the slave. The endeavour to create inferior and docile human breeds is to be condemned on like grounds.

Our object should be, therefore, to improve the breed of the whole nation. And in this endeavour we should not attempt to lay down a single standard of excellence, with the object of preventing or discouraging parenthood in all who fall below that standard. Such a standard would have to take into account bodily fitness, intellect, and temperament or character; and as regards none of these attributes have we at present sufficiently reliable methods of measurement for such a purpose.

The most practical way of judging grown men is by seeing how they are fulfilling the duties of the positions which they actually hold. If all who are now winning good wages by doing good work were to have rather more than enough children to fill their places when they will be gone, the ranks of such well-paid occupations would thus be kept full, with some to spare. If all doing ill-paid work were to have families so small that their numbers would not be maintained in the next generation, there would come to be fewer applicants for such labour. If this went on for long, the result would be that either wages would rise, or that this ill-paid work would have to be done in some other way. If the unemployed had few children, this would in like manner lessen unemployment in the future, with all its attendant misery. In these rather rough-and-ready ways the needs of the nation as regards the number of its people would best be met.

The point here is, however, that by thus regulating the size of families the breed of the nation would also be improved. Men differ greatly amongst themselves, and so do the qualities demanded by the different kinds of work which have to be done. If all men honourably employed

at high wages had families of sufficient size, the appearance in the coming generations of good qualities of every variety would be promoted. On the other hand, a proportion—often but a small proportion—of those winning low wages, or failing or not trying to get work of any kind, are thus situated because of some natural defect of body, mind, or character. If all such as these were to have few children, though it would be an unmerited privation to many, yet the result would be a lessening in the future of all natural defects leading to low wages or unemployment. Some suffering in this generation would thus be caused; but it would lead to an immense saving of suffering in the future. What has been said is perhaps enough to show that advantages of many kinds would result from the size of families being dependent on the positions held by the parents, and that thus to advance on a wide front is the best eugenic policy. This difficult subject will, it is hoped, be made more clear in a later chapter, when it will be seen how very far we now are from any such ideal condition of things.

What would occur when the natural qualities of a nation were being slowly improved in the ways above suggested may be roughly illustrated by the following analogy. When packs of cards are being dealt out at a whist drive, good hands appear fairly frequently and very good hands at rarer intervals. In somewhat the same way, the coming together by chance of a number of good qualities in the same individual before his birth results in the appearance of superior individuals at frequent intervals, and of men of genius much more rarely. Much the same might be said as to the way in which inferior and very inferior individuals make their appearance at intervals. Now, if some of the very low cards were to be removed altogether from all the packs, the differences between the hands as dealt out would become somewhat less marked. In the same way, if all the above-mentioned very defective types of individuals were to have no children, there would in future generations come to be somewhat less natural inequality between human beings. This would be an advantage as far as it went;

because, amongst other things, it would tend to lessen social and political discontent.

To illustrate by this analogy how an actual improvement in the breed of a nation takes place, we must imagine as well as we can that all the cards in all the packs are being increased in value. We must also try to imagine that, in consequence, the value of every hand as dealt out is thus increased. Good hands would become better, whilst bad hands would become less bad. But the difference between different hands would not necessarily be affected by any general increase in the value of the individual cards. And by this analogy we see that, though the natural inequality between men would be somewhat lessened by the elimination of all the very inferior types, yet that, as far as we can now see, this inequality is a fact with which human beings will have to reckon for ever.

The main point to be learnt from what has just been said is, however, that an improvement in the breed of a nation would result in the appearance of more men capable of filling every post needing useful qualities of any kind, whilst the greatest men in the land would be even greater than the greatest of to-day. Such a general improvement in breed should, therefore, be the main aim of eugenics.

Chapter VII

Inferior Stocks

IT has been seen that the future welfare of our nation might be greatly improved by attention now being paid to the breed of the coming generations. This could be done by making either superior stock leave more or inferior stock leave fewer descendants behind them. The methods of dealing with inferior stocks will first be considered.

A foolish argument against all attempts to lessen the number of children produced by persons marked by any serious natural inferiority may here be mentioned; because it is commonly met with. It has been said that men of genius are often unhealthy, and that, as the aim of eugenics is to get rid of all who are sickly, eugenic reform would prevent the appearance in the future of many such admirable persons. To this contention there are several answers. In the first place, the ill-health of remarkable men has been greatly exaggerated. In the second place, it would only be if some of the *ancestors* of the great men of the past had been very defective that eugenic reform would have prevented their appearance on earth; and it is not asserted that this was the case. Moreover, the suffering genius himself would not be interfered with, because eugenics does not propose to kill off all invalids. Lastly, if in the future the appearance of a weakly child could really be foretold, would it not also be possible to prophesy the appearance of a genius? And such an event no one would try to prevent. The argument fails all along the line.

The aim of eugenics is, on the contrary, to promote the appearance of all manner of men likely to benefit their fellow creatures. How is this to be done? If we could

trace our family histories far enough back into the past, we should all find that we are descended from one or more half-witted ancestors, or from some persons who certainly ought not to have become parents. If the reforms here advocated had been adopted in the past, these ancestors of ours would not have married, and, in a sense, no one of us would have come into existence. But the nation would have continued to exist all the same. Moreover, its citizens, being all without any defective ancestors, would, in consequence, have given birth to eminent men more often than at present. Here is a highly beneficial result to be expected from the prevention of parenthood amongst defective persons.

There are two ways of acting when the aim is the production of smaller families by persons of bad stock; and these are persuasion and compulsion. Persuasion is always to be preferred to compulsion, if the end desired can thus be obtained. Let us, therefore, begin by considering what can be done by persuasion.

To ask a man not to marry, or, if he does marry, to have no children, is to ask a great deal. But self-sacrifice is the very foundation of our ideas of what is noble in human conduct. If the world of the future would be benefited by a man refraining from parenthood, surely it must be right for him so to refrain. We should all do what we can to help to ascertain when such conduct would be right; and, when right, to encourage those called on to make such sacrifices to follow the dictates of their consciences. Those who think that little good could be done by such persuasion should, nevertheless, do all they can in this direction. It can, however, hardly be doubted that, if these ideas as to our duties were to become part of our everyday religious thought, the conduct of many persons would thus be affected.

The first question to be answered is, Who should voluntarily refrain from parenthood? In some cases there is no doubt. For example, no one should have a child who is suffering from one of those rare diseases or deformities,

including some kinds of blindness and deafness, which cause great suffering when they appear, and which are apt to reappear in the same family for many generations. Many of these maladies could undoubtedly be stamped out in time if the persons so afflicted would make the noble sacrifice of refraining from parenthood. This is, however, a matter too technical here to be discussed at length. All that need be said is that all deformed or diseased persons should certainly consult a doctor before marriage. Indeed, all persons without exception had better do so.

Some forms of insanity are said to be hereditary, and others not to be so; though this is hardly a logical distinction. It is true that insanity is sometimes the direct result of a contagious disease. In such cases the descendants of the insane and diseased man will not be more likely to become insane in consequence of their ancestor's disease; and his insanity may, therefore, be said to be not hereditary. If a person becomes insane, it is more often, however, because he has a certain predisposition to this disease. This predisposition may be strong or weak. If it is very weak, insanity may be avoided, or what is called cured, by leading a careful life. Now such a predisposition, whether strong or weak, is likely to be passed on to succeeding generations. Even if a person inherits a strong predisposition to insanity, it is not certain that he will become insane. But if he does become insane, then his insanity will often be described as being hereditary. It should be for the doctor to decide in any case of insanity whether the predisposition was strong or not. And, if strong, the person so suffering certainly ought not to become a parent. Those who act thus will be happier in the end for so doing. If they have children, they will keep anxiously wondering whether their malady will reappear in those they love so much. And if it does reappear, they will have the agony of feeling that it is their own fault.

As long as a person is in an institution for the insane, no question as to parenthood can arise. As to those who have been insane, and who are described as cured, there is often

a considerable chance that the malady will reappear in succeeding generations. But even if the possibility of the disease thus reappearing is left out of consideration, we may yet ask whether these unfortunate individuals ought to have any more children. If all the trouble in the household due to insanity, including the loss of the capacity to win wages and to look after the children, is held in view, surely it seems that no persons liable to a second attack should add to the size of their families. And as there are not many cases of insanity which do not make a second attack more probable, all who have once been thus afflicted would do well to make this sacrifice in regard to parenthood. In this way alone can the person who has recovered from insanity lessen the chances of the reappearance amongst his descendants of an ailment which causes the most intense suffering to all concerned.

Epilepsy is another bad disease which often runs in families. Consequently, no one who has had unmistakable epileptic fits should become a parent. The word "epilepsy," however, probably covers a wide range of diseases. All that can here be said for certain is that a doctor should be consulted before marriage when epilepsy is suspected.

The tendency to suffer from consumption seems also to run in families. In any case those afflicted with definite and pronounced consumption will be unlikely in the future to be able to do their duties as parents in an efficient manner. Consequently those at this stage of the disease should have no more children. This conduct, if widely adopted, would probably make future generations suffer less from this disease; for the hereditary predisposition to catch it might thus in a measure be weeded out.

The most difficult decisions in regard to the renunciation of parenthood arise when an individual, though apparently sound in mind and body, has many defective relatives. Here again all that can be said is, "Consult your doctor." A medical adviser ought to be able to take a more impartial and just view of the whole situation than the patient can possibly do himself. Unfortunately, at present very few

doctors have given careful thought to such questions. If more people would ask advice as to whether or not they ought to have children, more doctors would study the problems of heredity so as to be able to give a sound opinion in regard to parenthood.

In giving such advice, the doctor ought to bear many things in mind. A point often forgotten is that good qualities must always be weighed in the balance against the bad. When the relatives of a diseased person are generally high-minded and healthy, this fact should tell in favour of parenthood being justifiable in his case. Even to think of making the necessary sacrifice is an indication of the possession of a high character. Definite defects should appear in several near relatives, and should, as far as can be judged, not be such as are directly due to external conditions, if a person sound in mind and body is to be asked to make this great sacrifice. If the doctor is in doubt, it may be right to recommend a marriage which should result in no more than one or two children.

When eugenics comes to be more studied, it will be possible to give advice with greater confidence than at present on some of the points considered in this chapter. Even with our present knowledge it is, however, unquestionable that great benefits might be conferred on future generations by the voluntary renunciation of parenthood by the diseased and by such as are very likely to be the carriers of the hidden seeds of disease.

Chapter VIII

Birth Control

WE have seen that persons either endowed with bad hereditary qualities, or having many defective relatives, may be advised either to have no children, or that their families should be very small. But by what means ought these results to be brought about? The final decision on this question ought always to rest with the couple concerned. What is here said is only with the object of facilitating such decisions.

Some methods of preventing a too rapid increase of population must have been in operation in all ages. Animals in a state of nature always produce so many offspring that, if all of their young were to survive, the numbers of their kind would increase with enormous rapidity. The same would be true of man if he were to take nature as his guide in these matters. The number of the people has, however, of necessity always been kept down in one harmful way or another. The checks which have been most commonly operative in the past have been war, famine, disease, especially amongst the young, the deliberate destruction of little children, and the practice of abortion.

We all condemn war, at all events with our mouths. Happily it is no longer necessary to argue against the murder of infants or in favour of paying attention to their health. The cure of disease amongst persons of all ages, and its prevention by means of precautions taken in advance, meet with universal approval. Thus we see that we are now striving and are bound to strive against all those methods of keeping down numbers which have been most effective in past ages. Looking to the future, the increase in supplies of all kinds could not keep pace with such an

increase in numbers as would take place in the absence of all these checks. If over-population is permitted in the future, it will inevitably result at first in much unemployment, then in increasing poverty and disease, and finally in actual starvation. If this is not sooner or later to be our fate, some means of checking the growth of the population must always be kept actively at work.

Moreover, if we consider each family separately, we shall see that it is often highly desirable that it should not be too large. In the first place, the probable effects on the mother's health must be held in consideration. For this reason, and also for the sake of the children, births should at all events never follow each other too rapidly. Lastly, parents ought not to bring more children into the world than they can reasonably hope to bring up in accordance with a certain standard of living; and this standard as regards all higher things should not in any case be below that which they themselves have been accustomed to. The misery, pauperism, and even crime, resulting from overcrowded houses could certainly be lessened or obviated by forethought as to the size of the family. In fact, others besides those of bad stock ought often to refrain from parenthood.

Thus, whether we are looking to each family considered separately or to the nation taken as a whole, we see that some means of keeping a check on the population will always be necessary. Putting aside all the harmful methods above mentioned, there remain only two alternatives which have to be considered—namely, continence and birth control. It is true that both have been criticized on the ground that they are injurious to health. Neither of them is, however, necessarily injurious. Moreover, even if slightly injurious, this would certainly not be a conclusive argument against either of them. We often have to make a choice between two evils, and the harm done by over-population would far outweigh any minor evils which might attend whatever way was selected of keeping the number of the people within bounds. Details of the methods of birth control

will not here be discussed, it being sufficient to remark that the balance of medical opinion seems to be in favour of the view that some of them are harmless. In any case, we may well hope that better means of preventing parenthood will be discovered before long.

The objections which can be raised against each of these two methods of keeping down the numbers of a nation will next be considered. Continence may mean either the renunciation of marriage or abstinence from sexual relations after marriage. The objections to these two forms of continence are sufficiently similar to allow them to be considered together. They are as follows. In the first place, these practices are so much against human nature that it would be out of the question to expect that under any circumstances they would be largely adopted by the bulk of the population. No doubt continence has been deliberately practised after marriage to a greater extent than is generally admitted in order to prevent the appearance of too big a family. But continence alone could never ward off the evils of over-population. Moreover, continence would be more likely to be practised by persons guided by moral motives than by the thoughtless and the weak-willed; for the better the couple, the more consideration, at all events, would they give to any advocacy of continence on moral grounds. The result of trusting to continence alone would, therefore, be that the imprudent and those whose passions are controlled with difficulty would have a proportionately large number of descendants. The harmful qualities which distinguished them—namely, carelessness, selfishness, and sexual passions—would consequently thus be made to increase in future generations. Another objection to continence in married life is that it may cause such a strain as to stand in the way of affection between husband and wife; a tie which is essential to the well-being of the family. Lastly, when only one of a couple demands continence, the other may make this an excuse, however inadequate, for adultery.

Turning to the objections to birth control, it is urged

that a widespread knowledge of the methods of contraception would encourage promiscuous intercourse. This is no doubt true in a measure. Here again we must, however, weigh the good results against the bad. Much might be done in any case to mitigate such harmful results as would result from a widespread knowledge of birth-control methods. Public advertisements of contraceptive appliances should be prohibited. The most important reform which could now be made would be, however, to ascertain the best methods of instructing young people as to sexual matters—a difficult problem—and to see that such improved methods were generally adopted. But whatever steps might be taken in order to safeguard the situation, married women should always be able to get the necessary information without difficulty, which is not the case at present.

Certain moral advantages would, moreover, result from a general admission that birth control is justifiable in certain circumstances. Early marriages would thus be facilitated, and promiscuous intercourse diminished in consequence. The feeling of individual responsibility in regard to their children amongst parents would be increased; because the appearance of each child would be felt to be the result of deliberate choice. The strongest argument in favour of birth control is, however, that the present increase in the population of the world cannot go on indefinitely, and that the only alternatives in the future will be either birth control or the birth of millions of children destined to die a preventable death after a short and useless life. This is what is now taking place in countries where birth control is not practised.

To sum up, when the choice lies between doing an injury to posterity and refraining from parenthood, it appears that either continence or birth control must be practised. Those who admit that continence cannot be relied on as a sufficiently efficient check on population, but who nevertheless hope to see the practice of birth control entirely abandoned, should consider what would be the result of the fulfilment of their hopes. It would certainly be a steady increase in

unemployment, poverty, misery, disease, and the death of little children. On the other hand, those who are striving to promote birth control without reference to its effects on the inborn qualities of future generations should consider what would be the result of their endeavours if successful. It certainly would be that birth control would be most practised by the more thoughtful and superior individuals. They would have fewer children in consequence; whilst the inferior stocks, taking less thought for the morrow, would continue to have more children, thus making their bad qualities tend relatively to increase in the future. As we shall see in Chapters XIII and XV, the wrongful use of birth control is now doing an injury to the race which may have disastrous consequences. This is, however, no argument against its rightful use.

Our aim must, therefore, be to facilitate the practice of birth control when it is desirable on all grounds, whilst unsparingly condemning its use for merely selfish motives. A dual campaign, both for and against birth control—or, in other words, for its use only on suitable occasions—is needed in order to maintain the quality of our nation in the future.

There are many human beings, however, who could under no circumstances be trusted to practise the self-restraint needed for the voluntary abandonment of parenthood, whether by continence or birth control. Persuasion will not do all that is needed to preserve the nation from deterioration, and in future chapters it will be necessary to consider the cases in which pressure ought to be applied.

Chapter IX

Sterilization

STERILIZATION is another means of preventing parenthood which must be considered. It may, in fact, be regarded as a proper method of birth control in certain circumstances.

In the discussions on sterilization, prejudices have often resulted from a misunderstanding as to the nature of the operation which, it is proposed, should be performed. We shall here only be considering certain surgical methods which have been introduced comparatively recently; for the ordinary stockyard way of sterilizing the male is never advocated for eugenic purposes. Moreover, there are some reasonable grounds for hoping that still better means of preventing parenthood will be available before long; these being perhaps dependent on the use either of *X*-rays or of injections into the blood.

The operation now generally adopted in the case of males, known as vasectomy, is a trifling affair, which can be performed under local anæsthetics. The operation on females, salpingectomy, is a more serious matter, being perhaps comparable in risk to that for appendicitis when there are no complications. The difficulty of operating on females affords no excuse, however, for not operating on males. In regard to both operations, the character and the life of the patient are in no way affected, except that parenthood does not result from the union of the sexes.

Sterilization has been advocated both as a punishment and as a safeguard to the public in regard to sexual offences. The above-mentioned operation on the male would, however, be no safeguard against assault. Moreover, the threat of performing these operations would have little deterrent

effect on sexual offenders of either sex. As to the stock-yard method of sterilization, it would be unsuitable for the purposes of punishment, and its use would increase the unreasonable prejudices now often aroused against the methods employed for eugenic purposes. In any case, we are not here concerned with punishment.

The essential difference between sterilization and the ordinary methods of birth control is that there is no going back on sterilization. The surgeon cannot undo the work of the surgeon.

Sterilization has been altogether condemned as being an unjust interference with the liberty of the individual. Now, whatever force there may be in this objection, it can apply only to the operation if performed compulsorily. Whether compulsion in this matter should ever be legalised is a question which may perhaps be left to those who come after us to decide. At present certainly the public would not tolerate any such proposal, even if its justice could be fully proved; and no doubt it would be a dangerous innovation, unless very carefully safeguarded. We shall, in consequence, here only be considering sterilization in cases where a consent has been obtained. The question will arise later on, it is true, whether in certain circumstances some pressure might not be applied in order to prevent such consent from being unreasonably withheld.

The practice of sterilization has also been criticized on the ground that it would increase promiscuous intercourse. The reply to this objection is much the same as that already given in regard to birth control—namely, that sterilization should be adopted in spite of certain disadvantages if it can be shown that it would be on the whole beneficial. There is, indeed, less objection to sterilization than to birth control on this account; for few persons would, for the sake of immediate sexual gratification, voluntarily give up for ever the chance of becoming a parent. Moreover, as to such as would act thus, it would be an advantage if they were to be permanently sterilized, for we do not want persons of their kind to reappear in the coming generations.

When it can be finally decided that no more children ought to be born, the fact that sterilization is a step which cannot be retraced may make it especially suitable as a purely voluntary method of preventing parenthood, at all events in the case of men. Its adoption should, therefore, be carefully considered in certain circumstances. When a man has been insane it seems to be especially suitable; because, as has been seen, he had better then give up all idea of having any or more children. As to a woman in the same circumstances, it would be preferable if her husband, or the man she is going to marry, would consent to be sterilized, so that she might be saved from the more serious operation. With improved methods of sterilization no doubt in this case also it should be the woman who ought to be rendered incapable of parenthood; because it would certainly be undesirable to prevent the chance of a sound man becoming a parent if he should marry a second time. What has just been said about insanity is equally true in regard to a number of other rare hereditary diseases. Sterilization is also suitable when the consent to have no more children is given reluctantly; for then it would be desirable that the decision arrived at should not be revocable at will.

As to the feeble in mind, any consent which might be obtained from them would be meaningless. Parents and guardians should, therefore, be empowered to allow sterilization to take place when they see fit. As to criminals, paupers, and all living uncivilized lives in a civilized country, their sterilization would not only tend to purify the race, but might be beneficial by preventing the appearance of big families in bad homes. To these subjects we shall, however, return in later chapters.

As an objection to sterilization, and indeed to all other methods of preventing parenthood, it has been urged that the racial improvement thus brought about would be very slowly obtained. But even if it were so, to lessen the amount of insanity, mental defect, crime, and the many other failings found in association with them, would

certainly be worth a long-sustained effort. Statistical considerations, however, indicate that the effects on the race of preventing parenthood would at first be fairly rapid, and would become very slow only when the harmful natural qualities in question had been to a large extent successfully banished.

In reply to all that has been said in favour of sterilization, it may be urged that, in such a serious matter, mere theoretical considerations are an insufficient guide, and that reform can only be safely based on actual experiences gained in the past. But how are such experiences to be gained if no one will make a move? Luckily, there is one place in the world, though only one place, to which we can look when seeking for practical information in regard to sterilization; and that is the State of California in the United States.

Over 5000 operations for sterilization were performed in California in the eighteen years ending in 1926. To give an idea of what this means, if these operations had been carried on here on the same scale there would have been well over 3000 persons sterilized in England alone every year. About one insane person in twelve of those admitted to the Californian State Asylum was sterilized, these being those most likely to transmit this disease to posterity. It is true that in some cases the operation was performed in the belief that it would be beneficial to the health of the patient; this being very likely a mistaken belief. On the other hand, there is no reason to suppose that the operation was in any way injurious to health. Indeed, certain married women with a tendency to insanity, and with an excessive fear of pregnancy, were able to live comfortably at home after sterilization.

Turning to the treatment of the feeble in mind in California, all allowed to leave the State Asylum have been sterilized in recent years. A considerable number of girls have been sent by their parents to this institution in order to be sterilized, and have then been allowed to return home. Many patients are allowed out on parole, as it is there called,

when they live with their parents or appointed guardians. Girls who have already gone wrong need careful watching, whilst there has been surprisingly little trouble in regard to sexual matters with the men when on parole. A number of the sterilized persons are married, some having had children before sterilization. Marriage is indeed regarded as the most practical way of steadying girls when at liberty. It is claimed that, on the whole, sterilization has not increased promiscuous intercourse, and may even have lessened it.

English experience indicates that, in spite of great care, feeble-minded girls when not in institutions sometimes give birth to illegitimate children. In these circumstances a feeble-minded mother should not be held to be responsible or blameworthy, for it was impossible for her to have fully realized the nature of her offence. Since such occurrences could certainly be avoided by sterilization, a parent or guardian who fails to take this precaution must be prepared to accept the whole blame. If mothers of feeble-minded girls would picture to themselves all the shame and suffering which would be felt if an illegitimate grandchild were to be born in their home, they might begin to look on sterilization in a new light.

We have here been dealing with a disagreeable subject; but, in view of the possibility of thus improving the lot of all future generations, eugenics demands that careful and unprejudiced consideration should be given to the uses to which sterilization might be put.

Chapter X

Feeble-mindedness

RELIABLE estimates shew that out of every 1000 persons in this country there are between four and five who may be described as feeble in mind, imbeciles, or idiots. The total number in England and Wales of those who are so poorly endowed by nature as to have been incapable of profiting by ordinary education when of school age is about 350,000 in all. These facts are appalling, especially when we call to mind the suffering of parents when discovering that their child is feeble-minded or worse and utterly different from the being so hopefully pictured in advance. As to actual idiots, after visiting an institution where numbers of these creatures are being dragged through a useless and senseless existence, everyone must wish that something more might be done to prevent all such as these from entering the world.

It is certain that the number of persons who are duly certified as being feeble in mind has been increasing in recent years. There is no doubt, moreover, that this increase is largely due to more care having been taken in searching them out. Nevertheless, it seems on the whole probable that a real increase in their numbers is slowly taking place. And this possibility or probability makes it all the more necessary to try to wipe away this stain on our race.

The question may here be asked, What was it which first brought this trouble into the world? The answer is simple enough—We do not know. Many guesses have been made. The drunkenness, disease, overwork, bad housing conditions, etc., of parents have all been suggested as causes of

the feeble-mindedness of their children and of this ailment having then been passed on to their descendants by heredity. The evidence is not enough, however, to make it possible to say for certain that any one of these things either does or does not have this effect. If feeble-mindedness did first come into the world as a direct result of these social evils, in fighting against them we should be helping to prevent the appearance of these sad mental troubles in the future. But, on the other hand, if bad social conditions really have no harmful hereditary effects on posterity, we are nevertheless bound to fight against these social evils because of their immediate harmful influences. Our practical policy in regard to drunkenness, for example, ought to be the same whether it does or does not give rise to mental troubles amongst the descendants of the drunkard.

Feeble-mindedness is sometimes described as being hereditary; though, as a fact, no very clear line of demarcation can be drawn separating off such cases from those described as not being hereditary.

Dealing first with the cases described as not hereditary, this means that, if a person so afflicted is married, the children resulting from the marriage will be no more likely to be defective in mind than will be the children of their neighbours. Here it should be noted that the duties to be performed by a mother in rearing a child are amongst the most important of all human duties, and that a feeble-minded woman is quite unfit to perform them. It follows, therefore, that children ought to be taken away from feeble-minded mothers. But even if this were done, these children would grow up without a mother's care, which would be an incalculable loss to them. And all this applies, though in a less degree, to the father. In short, nothing can prevent parenthood being harmful in the case of feeble-minded persons. Moreover, we can never be quite sure that the feeble-mindedness is not hereditary, and that the descendants of the feeble in mind would not be of inferior stock. Consequently, we may conclude that no feeble-minded person should be allowed to become a parent, even

if it seems unlikely that the trouble would reappear in future generations.

Turning to what is called hereditary feeble-mindedness, what does this mean? A dose of harmful heredity, if it may be so described, may come into existence in a child, we know not why. This dose may either lie quite hidden in that child for all his life, apparently doing him no harm; or it may make him stupid, ill-tempered, nervous, epileptic, criminal, or with a tendency to drink. In all circumstances the dose will be passed on to many of the descendants of the child in which it first came into existence. Now, if several such doses are passed on to the same child, some coming from one ancestor and some from another, that child will be actually feeble-minded. And something like this, only a good deal more complicated, is how this ailment generally originates; when it may be called hereditary.

When such a feeble-minded person marries, some or all of these doses of evil heredity will be passed on to his children. If the child gets as many doses as the parent had, it will be feeble-minded also. If only some of the doses are received by the child, it may show any of the harmful qualities above mentioned. Or a dose may lie hidden and unsuspected in the child, though ready to be passed on to its descendants, in whom any of these harmful qualities may, therefore, reappear.

Somewhere about nine-tenths of all feeble-minded persons probably may be described as suffering from an hereditary disease in this sense. In such cases, some of their descendants, if they have any, will be classed as actually feeble-minded, whilst many more will show some marks of inferiority. It follows that, if all the feeble in mind were to be prevented from having children, much would thus be done to gradually lessen all these evils as the generations succeeded each other. Moreover, no child could then suffer all the harm due to being brought up by a feeble-minded mother.

If subject to no control, feeble-minded persons would have large families and many descendants. This is because they

have little power of looking into the future, or of foreseeing the consequence of their own acts. They do not well remember past warnings, and are often in some respects devoid of a sense of shame. And the fact that they would multiply rapidly if left at liberty makes the prevention of parenthood especially necessary in their case.

Then as to the ways in which parenthood should be prevented, some of the feeble in mind are endowed with strong sexual impulses, and are a danger to the public when at liberty. All of them, if unaided, are incapable of looking after themselves properly. As to those without natural protectors, many must, therefore, be sent to institutions, whilst far more ought thus to be cared for than is the case at present. This is, in fact, generally the best way of preventing parenthood.

To have to shut up any one is of course very distasteful to us all, for we all advocate freedom. But can we call the feeble-minded person "free," even when he is at liberty? A boy so afflicted may be jeered at in the streets, and when grown up he will not be treated as an equal by his companions. Is this freedom? When sent to an institution he will for the first time in his life be surrounded by his equals; with the result that he will generally be more contented than when out in the world. Those who visit such an institution, and who watch the faces of its inmates, will realize that they are not as a rule to be pitied on account of their own feelings. No doubt a few do fret, but not many. At such places the feeble in mind can learn better than anywhere else to pass their time in a useful and not disagreeable manner, and consequently to send them there is generally the kindest thing to do for them.

If the parents are neither feeble in mind nor living uncivilised lives, or if suitable guardians can be found, it is often a good plan to leave the feeble-minded person under supervision at home or elsewhere. In nearly all cases the possibility that they will have illegitimate children has to be considered; but, as remarked in the last chapter, this risk could always be avoided by sterilization. This policy

of sterilizing the feeble in mind has no doubt been condemned on grounds which will now be considered.

The cheapest way of dealing with the feeble in mind would at first sight appear to be to sterilize them all, and then to turn them all adrift to look after themselves. And there are some who fear that our Local Authorities cannot be trusted not to adopt such a policy. No doubt to house all the feeble in mind in a proper manner would be a costly business. But every other way of dealing with them would often be cruel, and would in some cases throw risk on the public. Moreover, the expense of maintaining all feeble-minded persons in institutions would not be so great as it would appear on paper. For against the costs as thus incurred there ought to be reckoned as an offset the heavy expenditure which would otherwise fall on private individuals, together with the additional public expenditure on prisons, workhouses, and hospitals into which many mental defectives would inevitably drift if not retained in other institutions. Lastly, the feeble in mind can often do more towards supporting themselves when in institutions than when at large. Local Authorities will learn to take these considerations into account; and they ought in this matter of sterilization to be trusted to do what is for the good of the nation to the same extent as in regard to many other duties. When it is seen that they cannot thus be trusted, all power should be taken away from them.

Another objection urged against sterilization, which was mentioned in the last chapter, is that it would facilitate promiscuous intercourse. Certainly it ought always to be possible to recall any certified mentally defective person to an institution on receipt of an unsatisfactory report. With a well-organised system of guardianship thus safeguarded, sterilization ought to add little to the risk of sexual troubles arising. Experience alone could show how many persons could safely be allowed more liberty because of sterilization; for on this point the evidence is contradictory. But thus to add to the happiness of even a few is well worth striving for.

Marriage might sometimes be the best thing for high-grade feeble-minded persons, and at all events after sterilization it would be harmless to the race. Without this precaution, the marriage of certified mental defectives adds greatly to the difficulty of preventing parenthood, and it ought to be made illegal, except in cases when parenthood is impossible.

To sum up, the right policy for feeble-minded persons is to send them to institutions; or, in selected cases, to place them under guardianship, the probability of parenthood always being held in view. This would result in a slow but continuous decrease both of this grievous malady and of many other evils associated with it.

The Mental Deficiency Acts were mainly designed to safeguard all mentally defective persons, whilst they have had a beneficial effect in lessening parenthood. Though imperfect, they have done much good in certain districts, whilst in other places they have not been properly carried out. It is easy, from the figures already given, to get some idea of the number of mentally defective persons in your county or borough. Ask your representative what accommodation his Council has available for them, and you may find that it is miserably deficient. In that case, if you will suggest that your vote at the next election will be decided by the way in which the candidates regard this matter, you will have done something practical both for the feeble in mind and the future of your country.

Chapter XI

The Habitual Criminal

THERE are three things which make a person likely to commit a crime. These are, in the first place, a bad home; in the second place, subsequent temptation; and, lastly, bad natural qualities. We are bound to mitigate all these causes to the best of our abilities.

Endeavours to wipe out the effects of harmful early surroundings, or to lessen temptation later in life, do not come within the scope of eugenics. This makes them none the less important; but it is a reason why they should not be discussed in a book on that subject.

It is true, no doubt, that it is practically impossible to disentangle the effects of these three causes of crime. It has been said on good authority that the son of a criminal is ten times as likely to commit a crime as is the son of honest parents. But with our present knowledge we cannot divide out this result and say that so much is due to bad early environment, so much to meeting the devil in the path of life, and so much to bad inborn predispositions. We may conclude, however, from such facts as this that if criminals had fewer children there would be less crime in the coming generation.

The following is the way in which criminals are separated out from the rest of the community. A lad who has a very bad home, or very bad natural qualities, or both, will go astray under almost all conditions. Another lad, with a better home or with better qualities, will commit his first breach of the law only if actually tempted; if shown by a relative, for example, when hard up how he can benefit himself at little risk by pilfering. It is the strength of all

the harmful conditions added together which decides whether the trigger of crime will or will not be pulled. The criminal is a man of the same kind as his neighbours, differing from them only in degree or in luck.

There are some persons who think that natural predispositions need not be considered, and that attention should be concentrated on the surroundings either of the child when at home or of the man later in life. Those who look on the matter thus may believe that, if all children were taken away from bad homes, all the bad effects of the bad home might be wiped out. One of the consequences certain to result from the adoption of such a policy is, however, generally overlooked; and that is that it would result in more children issuing from bad homes. There are several reasons why this would be the case. Both birth control and abortion are practised because the family is big enough already. Take away a child, and these ways of preventing parenthood will be less likely to be used and more children will be born. Again, the fewer children there are at home, the more care they will get, and the fewer will die from want of attention. This is a good result in itself; but it does follow that the removal of children from bad homes will increase the number coming out of them. Children cannot be taken from their parents, however undesirable, without some harm as well as some good being done.

It is, moreover, impossible to deny that many natural qualities that help to promote crime are often passed on by parents to their descendants. No one who has studied the subject doubts that this is true of feeble-mindedness. And, when criminals are examined, a number are invariably found to be feeble-minded. There have been considerable differences of opinion as to the proportion of those who on first conviction should thus be described. In America the proportion is said to be much higher than the figures given for this country; this being because the term "feeble-minded" is there held to cover many comparatively mild ailments. In any case, the experts in England agree that, besides the feeble in mind, a very large proportion of young

criminals may be described as not quite normal. Now all these mental troubles, whether mild or severe, are often transmitted to future generations by natural inheritance. It is possible to do much to ward off the harm likely to result from all such harmful predispositions; but they are a force which has to be reckoned with when once the child is born.

The ideal plan would be for every young person, when accused of a crime, to be examined as regards his mental powers before being brought into court. Those found to be definitely feeble-minded should be certified as such and the criminal proceedings at once abandoned. Here is a direction in which reforms are much needed. The milder cases of mental trouble constitute a more difficult and possibly a more important problem. It is, however, one which we are not yet ready to touch.

It has just been suggested that the powers which human beings possess of overcoming their evil propensities are strictly limited; and this view will doubtless be resented by many. But we must look facts in the face. A boy from a very bad home commits a crime with no excuse, and in consequence he is sent to a reformatory, where he is well cared for. Another boy does not fall so readily, but when somewhat older and when more tempted he does become a criminal. Now, those who put everything down to the influence of home surroundings must assume that the home of this second boy was bad, though not so bad as that of the first boy. This second boy remained later in his presumably bad home, and had for a shorter time the advantage of reformatory training; that is, in comparison with the first boy, coming from the even worse home. Let those who look only to surroundings consider which boy will be most likely to commit a crime after having finished his reformatory training.

As a fact, it is those boys who have been longest in reformatories who are found to be most likely to become habitual criminals. Properly regarded this does not, however, throw any discredit on reformatory training. The

explanation is that it was the boys with worst natural qualities who on the whole committed offences against the law earlier in life. They had in consequence the longest reformatory training; but, when coming out, their bad qualities began to tell once again and soon led them to a life of crime. No doubt many who have been led astray mainly by the force of bad example can be and are put on the right road by care and training; and this fact amply justifies the existence of institutions for this purpose. But here we have a proof of the existence of hereditary qualities tending to promote crime which cannot be denied.

Those criminals who have the worst predispositions will do most harm to posterity by having children. We should, therefore, ascertain as well as we can which classes of criminals have the worst natural qualities. The men who receive heavy punishments have often committed crime requiring at all events skill, intelligence, and courage. Habitual criminals, who commit many trifling offences against the law, need have only courage enough to face a trivial punishment and the attendant disgrace. Moreover, they are found as a rule to be very stupid, and often lazy, bad-tempered, thoughtless, and decidedly inferior in strength and other bodily qualities. They take to crime early in life, and they far outnumber what are generally called the worst offenders. For all these reasons it is the habitual offender—that is, the person often convicted of petty offences—to whom most attention should be paid when considering how to diminish crime in the future.

We see, therefore, that it is on all accounts desirable that habitual criminals should have few children. But how is this result to be brought about, whilst at the same time giving a fair chance to all who have failed through bad surroundings to get on their legs again? It is now generally admitted that prison does no good to the criminal himself; for the more often he is shut up, the more certain he seems to be to commit another crime. Short imprisonments do nothing, moreover, to lessen the size of the family. The best plan would be to treat the habitual criminal in three

different ways or stages, each with a somewhat different end in view.

The aim at the first stage, immediately after the first offence, should be to get rid as far as possible of the after-effects of the bad home. The young offender, if not kept under probation, should be sent immediately to some institution to be trained; and he should be kept there as long as any useful purpose would be served. Life at such places should be made pleasant rather than unpleasant; for that would lessen the opposition to such detention. Many will be saved, and excellent work will be accomplished. On the other hand, failures will be frequent; for innate stupidity cannot be stamped out by the schoolmaster.

During the second stage the aim should be to make young offenders more afraid of coming within the grasp of the law. Short and sharp imprisonments should be given when crimes are committed by those who have had adequate reformatory training. The punishment should be sufficiently unpleasant to make it feared; for if this is the case it will deter a few from crime. Those endowed with very bad predispositions will, however, drift back to prison time after time; and, when convicted four or five times, further liberty is practically certain to mean further crime. Then the public has the right to demand adequate protection, both against this intolerable nuisance and against the social contagion springing from the criminal himself.

It would only be in the proposed third stage that the families of criminals would be reduced in numbers, and that the eugenic aim would be in any degree attained. After it had appeared certain that further short imprisonments would be useless, detention after each conviction should be for longer and longer periods; until finally the detention should be permanent. Such long detentions should be made pleasant rather than unpleasant, the sexes, however, being kept apart. Habitual criminals at this stage are to be pitied rather than blamed; because it has become evident that they are persons incapable of managing their own affairs.

Even during what would be regarded as permanent detention, holidays might at times and under favourable conditions be arranged. When this was permitted, the question of sterilization by consent should be considered.

To sum up, every effort should be made by probation and training to give the young first offender a fresh start. Imprisonment benefits no one, and will not frighten those with bad predispositions. Short punishments are, however, useful in sorting out the more hopeless cases as quickly as possible. Liberty is the only reliable test as to fitness to be at liberty; but when this test has failed often, the claims of the public for protection must be considered. Long periods of detention must then be enforced, when nothing will be gained by making life uncomfortable. The result would be the birth of fewer children in criminal homes, something thus being done to stamp out crime in future generations. Various bad qualities associated with crime would thus also be somewhat lessened; including stupidity, sexual profligacy, bad temper, idleness, epilepsy, alcoholism, and bodily weakness and inefficiency. It is in the directions indicated by the second and third stages of this suggested method of dealing with habitual criminals that reform is most needed.

Later we shall be considering whether our race is improving or deteriorating as time goes on. In this connection we are naturally led to enquire what the statistics of crime could tell us. Fewer persons are now being sent to prison; but this may be merely because wiser methods of dealing with young offenders have been adopted. Indeed, statistics indicate that indictable—that is, the more serious—offences known to the police have increased since 1913. But even if this be so, it may be the result of punishments being less severe, and therefore less feared. Crime might increase without any deterioration taking place in the natural qualities of the nation. In fact, existing criminal records can tell us but little as to whether the nation is going uphill or down in inborn qualities.

Chapter XII

Who Pays the Bill?

IN previous chapters we have been dealing with criminals, the insane, the defective in mind, and all those suffering from serious hereditary diseases. Such persons as these, who may be described as the unfit, are not difficult to separate from the rest of the community.

The unfit throw a heavy burden of expenditure on their neighbours in many ways, some of which often escape notice. That the care of this class of persons necessitates heavy public expenditure is indeed obvious to all. This expenditure includes all that falling on the State on account of the presence of the unfit in prisons, workhouses, hospitals, asylums for the insane, for idiots, and for other mental defectives, together with the cost of all public services dependent on these institutions, including their construction and repair, and also that on outdoor relief. Great numbers of persons are employed as judges, magistrates, prison officials, doctors, nurses, special school teachers, and attendants of many kinds; and the services of most of these could be dispensed with if there were no unfit in our ranks. It is difficult to get an accurate estimate of all this expenditure, but the sum must be very large.

The unfit also throw a heavy burden on private individuals, the cost of maintaining mental defectives, the insane, and the diseased at home or in private institutions being especially heavy.

It is obvious, therefore, that if all the unfit could be replaced by hard-working citizens, the gain to the country would be great; and we shall see that there are other reasons even more important for coming to this conclusion. Before considering them, it should be observed that there

is another class, less easily distinguishable from other citizens, which should be considered in this connection. This class comprises all those who in no circumstances would or could continue to win such a wage as is deemed to be essential by the general sense of the community. This class may be described as the inferior, and this wage as the minimum wage.

The inferior include in their ranks the stupid, the careless, the inefficient, the intractable, the idle, the habitual drunkard, as well as those too feeble in body or in health to do a good day's work. The inferior add to public expenditure in the same ways as do the unfit; being often found in public institutions and in receipt of outdoor relief. And this class is so numerous that the gain which would result from its disappearance would be even greater than that due to the disappearance of the unfit.

Unfortunately, citizens often fail to realize many of the following ways in which they are hit by taxation; although the well-to-do can have no doubts on this subject. Poor law expenditure is largely included in rates; and a rise in the rates causes a rise in the rents paid even by the poorest. Every man in effect pays taxes every time he drinks a glass of beer or a cup of tea, or smokes a pipe. Taxation for unproductive purposes affects the commerce of the country in such a way as to tend to cause a rise in the price of all goods. We have seen that a reduction of the numbers of the unfit and the inferior would result in a reduction in public expenditure. We now see that this again would lead to one or all of the following advantages:—A reduction in taxation; an increase in the public money available for expenditure in other directions—on education, libraries, roads, public lighting, public safety, scientific research, for example; and a reduction in prices.

If we were to confine our attention to taxation, we should, however, fail to realize much of the damage done to us by the unfit and the inferior. Employers, whether public or private, often can only look to the value of the work done by whole groups of employees; and consequently

they may be bound to pay a lower wage to better workers if working in association with slackers and other inferiors. Or, if employers do keep up wages all round, the prices of the goods they produce must be raised to make up for the poor work of the inferior. Tradesmen are practically forced to charge higher prices in order to cover the bad debts, etc., incurred by dealing with the inferior. When any man insures against any contingency, whether it be unemployment, fire, old age, burial, etc., he would have to pay a smaller sum if the Government or the Company, as the case might be, had not to cover the risks due to dealing with the fraudulent, the unhealthy, the careless, etc. Compulsory public services, such as those on juries and for the defence of the country, would be less onerous if every man called on were fit and willing to serve. Lastly, the trouble brought on all, but most of all on the poor, by the doings of habitual criminals must not be left out of the account. In short, the financial and material injuries done to the public by the unfit and the inferior will be seen in every direction if we look for them carefully enough.

The most important of all the benefits which would result from any diminution in the numbers of the inferior would, however, be that due to a lessening of the harmful results of social contagion. In this chapter we are only looking to financial questions; but it is here in place to note that idleness and many other bad qualities are highly contagious. Consequently, the value of the work done by any body of ordinary citizens would be increased if none of them ever came in contact with the inferior either in or out of work hours.

It is constantly said that a man wants work. It would be more true to say that he wants wages. It would be still more true to say that he wants the goods which he can buy with his wages. Carry on this line of thought, and we shall find that some of these difficult questions are thus made easier to answer. That is to say, it is often best to put money out of our minds altogether, and to think only of goods. By "goods" is here meant all things that we want

and can get in exchange for money, including services rendered. For example, a doctor's visit is goods.

The citizens of any country, as a whole, are producing an enormous mass of goods; and these goods are being shared out amongst all these citizens after they are made. If they are not being shared out fairly, reform in this direction is needed. Such reforms raise very important and difficult questions, but they are not the subject of this book. What we want here to emphasize is that, when a number of men fail to do a fair day's work, the mass of goods to be shared out amongst all our citizens is in consequence so much the smaller. Some or all of us will then suffer by getting a smaller amount of goods as our share. An idle man generally injures many besides himself.

Thus we see that if all the unfit and all the inferior, together with all those officials and attendants whose time is taken up in attending to them, were to do a good day's work in producing useful goods, the amount of such goods available for distribution would be enormously increased. In a previous chapter it was seen how large are the numbers of the mentally defective; and to give an idea of the importance of this subject many other facts might also be mentioned. For example, in England and Wales nearly 70,000 police are employed; whilst in every year the amount of working time lost by sickness by all persons insured by the State, if added together, would amount to 270,000 years. Thus, by putting money out of consideration, it is easy to realize how great would be the benefits to all which would result from any diminution in the numbers of the unfit and the inferior.

There are always a large number of men either out of employment or winning a wage below the minimum; and for this state of things there are several reasons. Many of these unemployed persons would have been willing and able to win that wage if they had been either better trained or given a better start in life; and of course all that can reasonably be done to remedy this evil should be done. When trade is brisk, the majority of those not winning a

reasonable wage are, however, so situated because of some defect of character, intellect, or body. They belong, in fact, to the classes we have described as the unfit and the inferior. They might equally well have been called the unemployable at a minimum wage.

We have already seen that, if every one worked as hard as he could, the stream of goods to be shared amongst all would be as large as possible. From this point of view, though not from others, it would be advantageous if the unfit and the inferior were allowed to do any work they could. But as they could not be permitted to live uncivilized lives, this would not prevent the State from being obliged to give some assistance to nearly all of them. There is no way of getting rid of the burden cast on their neighbours by the unfit and the inferior, except by getting rid of them altogether. This, of course, cannot be done with those now with us. But looking to the future, we must remember that like tends to reproduce like. If the unemployable were to multiply more slowly than the employable, then the breed of the unemployables would be proportionately reduced in numbers in the future; and the appearance of fewer unemployables would mean diminished unemployment. To whatever extent the families of the inferior could now be reduced in size, to a corresponding extent would something be done to lessen the burden thrown on our descendants by the inferior of their day. The question is, Can anything be done in this direction? To this enquiry we shall have to return.

It may be said that we have only been suggesting ways of taking a burden off our own shoulders and off the shoulders of our descendants. It may be added that, if we were to regard matters from the point of view of the unfit and the inferior themselves, we should have come to different conclusions. But this is not a just criticism. Vast numbers of these classes lead suffering lives, and if they were to be replaced in the coming generations by healthy and capable citizens, the amount of sorrow and pain which would thus be wiped off the slate would be

enormous. And this fact constitutes one of the strongest pleas in favour of a reduction in their numbers.

To conclude, every time any one receives his wages, or buys anything whatever, or pays for any services rendered to him, he comes off worse than he would have done if there had been no unfit or inferior in the ranks of the nation. Then again, the amount these unfortunates suffer, and the amount of suffering they throw on others in many ways, are truly grievous. If all men could realize how much better and happier all classes would become if the number of these unfortunates were to be reduced, then eugenics would come into its own.

Chapter XIII

The Deterioration of our Breed

IT may be asked, If great damage is really now being done to the nation by the unfit and the inferior, why do not we see the results quite clearly? Families are better housed, better fed, better educated, have more amusements, and are more comfortable than they were a century ago. Why not trust to a continuation of this improvement? This is a question needing an answer.

In the first place, what has been said about the unfit and the inferior cannot be passed over lightly. Insanity, mental defect, and crime may be increasing, and our slums are certainly still with us. Again, if progress is being made, it is only in certain directions. We may boast of our increased wealth and greater comfort. All this is, however, mostly due to scientific discoveries made by the few. We shall not continue to make material progress unless as large a proportion of great men appear in the future as in the past. A falling off in our creature comforts, let alone in all higher things, will take place if the breed of our race is not maintained. The greater luxury visible on all sides may hide the fact that man himself is slowly getting worse. It is a slow and unnoticeable change which is most to be feared.

What we ought to look to in this enquiry is the very nature of man himself. The doctor has done much towards defeating those germs which, by invading our bodies, give rise to small-pox, typhus, diphtheria, and other diseases even more loathsome. But what has been accomplished when the trouble lies in the man himself? There are little or no signs of improvement as regards mental defect, cancer, rheumatism, defective eyesight, teeth, or hearing. In

these matters the surgeon has done more than the doctor. Education has greatly benefited the poor; but as to those classes which have for long had the advantage of a good education, are they any better or wiser? I doubt it. Do we keep turning out great men as often as in the past? Let each one answer this question for himself.

The greatest cause for alarm arises, not from what we can actually see, but from what we judge must be taking place. The following facts illustrate what is known as the differential birth-rate. In an examination of the census of 1911 the population was divided into eight "social classes"; but of these only three will here be mentioned. The first class, "the upper and middle classes," is sufficiently well described by its name. It includes at the lower limit such occupations as clerks and insurance agents. In this class it was found at the date of the census that every 100 families had 190 children already born, of whom 168 were then alive. In the third of the eight classes, consisting of "skilled workmen," the similar figures were 279 born and 232 surviving. In the fifth class, consisting of "unskilled men," the numbers were 337 born and 268 surviving. Thus the surviving children per 100 families numbered 168, 232, and 268 respectively in these three classes. Since 1911 it is probable that the birth-rate of the skilled workmen has fallen more than that of the unskilled men. Thus the rule is, the higher the salaries or wages, the lower the birth-rate. There are exceptions, but they are not enough to prevent us from placing reliance on this generalization.

This matter may be put another way. Where there is overcrowding, where many children are employed, where circumstances make refinement of mind and manners difficult, where many children die, there wives have most children. The high death-rate in the poor districts does not now counterbalance this high birth-rate; though probably it did so in the past. And the death-rate amongst the children of the poor is still falling, as the results of the splendid efforts which have been made to bring about this result. The labourer class has been multiplying more and

more quickly as compared with those classes containing artizans, clerks, and all drawing higher salaries.

To illustrate what is now taking place, reference may again be made to a game at cards. First let it be noted that the hands dealt out are never the same in two successive deals; and yet the pack as a whole remains unaltered. In somewhat the same way, although no individual in any one generation is ever exactly like any individual in any succeeding generation, yet the group to which they belong may remain quite unaltered. That is to say, there may be no change in the probability of superior or inferior persons being born. This is, however, but a rough analogy, and it may be as well to get nearer to the actual facts of life. Man develops from a germ, and each such germ contains a number of things called genes. The qualities of a man depend largely on these genes. Some genes tend to promote good qualities, and these may be called good genes. Other genes have an opposite effect, and these may be called bad genes. These genes always go in pairs, one of each pair coming from the father, and one from the mother. When a new generation is being formed by the union of a male and female germ, half the genes in each of the parent germs, one from each pair, are thrown away, as it were, these discarded genes being selected by chance. Thus in every generation the genes in the germs remain in pairs.

An exceptional number of good genes—like an exceptional number of good cards—may come together by chance in a germ. Then the person developing from that germ will be exceptionally intelligent or efficient. If his parents are labourers, he may rise out of that class. He will be lost to the labourer group, and his good genes will go with him. In subsequent generations these good genes cannot reappear in that group, and in it ever afterwards remarkable men will in consequence be less likely to appear. As long as the labourer group continues thus to lose large numbers of its best men, so long will it continue to deteriorate. Its numbers may not diminish, because the gaps in its ranks may be filled up by its high birth-rate.

If these labourers join a group of artizans, they may, however, do no more than fill up the gaps made in the ranks of that group in consequence of its low birth-rate. The relative numbers of the labourers and artizans groups may remain unchanged. But how about their relative qualities? The good genes brought with him by the incoming labourer might, it is true, at first tend to raise the standard of the artizan group in the coming generations. We have seen, however, that these incoming labourers would continually deteriorate in quality; with the result that the artizan class which received them must in time also begin to deteriorate. The artizans would acquire some superiority over the labourers in natural qualities; though in the end all would begin to go slowly down the hill together, the labourers merely leading the way, and all other classes following after them.

Every position should, no doubt, be filled by the man best fitted to fill it, whatever might have been his origin. That men of good parts should continually keep mounting the social ladder is certainly all to the good. The alarming fact is that big gaps occur in every generation in the ranks of the skilled artizans and in other valuable classes. This is because married couples are failing badly in their duty of keeping up the numbers of the nation. These gaps in their ranks are being filled up by means of transfers from classes with a higher birth-rate; and these new-comers, when they have risen, also begin to have small families. It is the big and little families at the two ends of the scale that are the cause of the mischief.

All that has just been said assumes that the men picked out for the better-paid jobs have, as a rule, better qualities than those who are less successful. All must agree that many men fail to win high wages because they are weak, sickly, foolish, ill-tempered, drunken, careless, or dishonest. In reply it may be said that some evil qualities make for success, including greed, ambition, carelessness for the welfare of others, etc. This is true in a measure; but these bad qualities are far outweighed by the good qualities

making for success. These include honesty, industry, perseverance, sobriety, intelligence, good-fellowship, strength, and good health. Looking to the mass of mankind, the man who wins his way into a better position generally possesses a considerable balance of good qualities.

Good jobs are, it is true, often obtained by favouritism. Much good work is ill paid. And men often fail from want of training or opportunity. These are all evils against which we must fight, and they are evils which will diminish with any real advance in civilization. A continuous deterioration in the inborn qualities of the people would, however, be certain in time to show itself in a decline in our civilization, and thus put an end to all such hopes.

Here again it may be asked, If the differential birth-rate is really producing such harmful effects, why are they not clearly visible? The reason is that the causes of the harm now being done have been at work for only a comparatively short time, and that the changes for the worse are being produced only very slowly. A century ago there was much less movement up and down between the social classes; the barriers between them being then much harder to surmount. In recent years great efforts have been made, by the award of scholarships and in other ways, to pick out the best even in the poorest districts, so as to help them to win high wages. The families of the artizan and middle classes were larger half a century ago than they are at present; whilst in the poorest quarters children were then dying with terrible frequency. The smaller families now being produced by those doing well-paid work leave more vacancies which can be filled from outside; and to fill them more persons are available because of the diminished death-rate amongst the poor. We are faced with a new and formidable condition of things; so new that it is not surprising that no signs of the damage being done are yet clearly visible.

If we look far enough into the past, the warnings we may thus obtain are clear enough; for wherever civilization has become very luxurious, it has begun to go downhill. One early sign of this deterioration has been the

absence of great men. The ancient Greeks at their prime turned out a larger proportion of men of genius than any other nation has done in the last two thousand years. Both Egypt and Rome had high civilizations which disappeared. In these and other countries, luxury was followed by internal disorders and attacks by external enemies; and then followed periods well described as dark ages. One cause of deterioration which is at work now was certainly at work in those ancient days, and that is a low birth-rate amongst the superior breeds and a high birth-rate amongst the inferior. Other causes no doubt helped to ruin ancient Rome; but if we sit still her fate will be ours also.

If we wish to maintain the honour and reputation of our country in the distant future, the birth-rate must be increased where it is now often low, and lowered where it is now often high. To do this wisely should be the main aim of eugenics.

Chapter XIV

Eugenics in the Future

ALL of us are being greatly damaged by the presence of the unfit and the inferior in the ranks of the nation. If those included in these classes have large families, this injury to our country will be slowly increased as the generations succeed each other. And in all probability, from this cause, racial deterioration is now actually taking place very slowly but very steadily. All this we have seen, and the question is, What can be done to safeguard the nation against this treacherous disease?

In the first place, how are the individuals to be selected who ought to have either small families or no children? This question has already been answered as regards the insane, mental defectives, criminals, and the diseased. If parenthood were to be entirely prohibited amongst all these classes, not only would all these particular troubles be slowly lessened in the future, but in all probability something would thus be done which would tend to produce a much more widespread improvement. But the possibility that other causes might be at work which would more than counterbalance these beneficial effects must be held in view. To use the analogy of the cards once again, if hands containing, for example, many twos and threes—these representing the germs of certain evil qualities—were to be thrown aside and not dealt out again, the remainder of the packs as a whole would thus be made proportionately richer in good cards. But if, at the same time, many of the somewhat higher cards were also being thrown out in a similar manner—these higher cards represented the germs of those qualities possessed by the men of real use to the nation—it is evident that the effects produced by

the removal of the small cards might thus be reversed. The elimination of the unfit, however beneficial in itself, might not alone prevent a deterioration in the breed from taking place.

In fact, the greatest danger to the race in the future is likely to result from what is taking place amongst the mass of the people. It is the large families now so often produced by the less useful citizens, and the small families produced by so many of those on whom our prosperity depends, that constitute the danger signal. It is even more important to look to the inferior than to the unfit.

But who are the inferior? Taken literally, this term is a very vague one. If we imagine a steady improvement in our race going on for long ages—and this, I have no doubt, is at all events a possibility—we see that the superior of one generation would in these circumstances be like the inferior of the succeeding generations. We may, therefore, hope that as time goes on a higher and higher standard will be set when considering what kind of persons ought not to become parents. For the present the line to be drawn separating desirable from undesirable parenthood must be decided by purely practical considerations; that is, by considering what is and what is not possible.

When considering whether it is possible to make any move, other than by mere persuasion, in the direction of lessening the fertility of the inferior, there are two classes of persons to whom it is especially desirable that attention should be directed. The first class comprises those who are living an uncivilized life in our midst. The second class includes all those who have for a long time been in receipt of help of various kinds from the State; that is, of public assistance, as it may be called. Let us begin by considering this second class, who may be conveniently grouped together under the title of dependents, thus separating them off from all truly independent citizens.

A few words must, however, first be said in regard to certain general questions. What is the effect of public assistance on the size of the families of those thus assisted?

There are no doubt some individuals who act like the lower animals, being quite uninfluenced in regard to parenthood by any thoughts of future consequences. Such as these would not be affected in regard to the size of their families by public assistance one way or the other. The majority of these animal-like creatures are, however, feeble in mind, and on that account parenthood ought anyhow to be prohibited in their case.

Again, it has been said that some persons are made so miserable by their surroundings that they take no thought whatever of the future and act only on the spur of the moment. All such as these, so it is argued, would be made less reckless by adequate State aid, and would consequently have smaller families. This may be true; but, as I have never come across any such person, I gather that they cannot be numerous.

The great mass of our population are certainly neither purely animal nor utterly reckless; and it is to the mass we should mainly look when framing a social policy. If it were known that the appearance of each additional child would certainly result in the receipt of additional public assistance, the effect on all ordinary citizens would certainly be to make parenthood appear less onerous beforehand. We may conclude, therefore, that any State aid dependent on the number of children would generally tend to increase the size of families. Outdoor relief of the poor other than the aged, unemployment doles if not truly part of an insurance system, and free feeding and clothing of children would certainly tend to encourage fertility.

On the other hand, the effect of the giving of State aid must in all circumstances be to increase the taxation levied on all independent citizens; and increasing taxation tends for long to produce a reduction in the size of the families thus affected.

The foregoing considerations indicate that assistance which eases the strain of family life tends proportionately to increase the number of dependents in the coming generations. All such assistance may be described as philanthropic,

whether coming from public or private funds. And we thus see that philanthropy is constantly helping to defeat its own aims. No check must, however, be placed on these noble efforts to lessen human suffering. What we have to seek for is some way of counteracting those consequences of philanthropy which are harmful.

Another general question which has to be considered is whether any couple has the right in all circumstances to bring offspring into the world. Here we have first to ask, What is the meaning of the word " right " ? If a man says he has a right to live to the age of eighty, such a statement is meaningless; because all men cannot be made to live to that age. If a man says he has a right to vote at a certain election, he means that the Government ought to see to it that he can record his vote on that occasion. The right of one person always implies an obligation on some other person or persons. And it is only by considering the obligation side of these questions that light can be thrown on them.

As to an unlimited right to parenthood, this would imply an obligation on the part of the State to see to it that all couples could always produce as many children as they liked. But the State does not do this in the case of persons confined in prisons or other institutions. And surely the State ought not to facilitate the appearance of such offspring as would be likely to produce an injurious effect on all future generations. The right to parenthood cannot be unlimited.

There are, however, other rights which must be held in view. It is generally held that all men have a right to live. If so, every child must, to say the least, be kept alive, if necessary by public assistance. If nothing else were done, this assistance would, as we have seen, tend to encourage the inferior to produce more children. For this reason the State may justly accompany public assistance with certain conditions as to the further production of children.

Returning to the limitation of the size of the families of those we have called dependents, we have seen that they

have no unlimited right to parenthood. The State may, therefore, rightly prevent the continued injury which would result from the production of large families by this class of persons. But how? It would be both undesirable and impossible to prevent parenthood amongst so large a class by any form of compulsion. It would not be difficult, however, to warn all those who had for a long time been in receipt of public assistance that no more children ought to be born. Such a warning would, of course, be useless when parenthood had become impossible. When any of those warned did neglect the warning, and when more children appeared, the public assistance given might be reduced in quantity or given only in institutions, where parenthood would be impossible. This would tend to deter others from neglecting these warnings. Until eugenic problems are more widely understood, it will continue to be useless to discuss in detail any such scheme as this, for it will remain without the necessary backing of public opinion.

The other class of persons needing early attention from the eugenic point of view comprises those living uncivilized lives in civilized countries. Many of them have for long been, no doubt, in receipt of State aid, and such as these should be dealt with as dependents. It is the treatment of those living uncivilized though independent lives in our midst which constitutes a most difficult problem. Many of them are living in overcrowded dwellings, or not sending their children to school. In either case, they could be warned that no more children should be born. And they might be told that, if such warnings were neglected, the laws as to overcrowding and education, often a dead letter in such cases, would be rigidly enforced.

Thus we see that there are methods by means of which it would be possible to diminish the size of the families of the inferior, and thus to promote racial progress. The state of public opinion probably now makes all the steps here suggested quite impracticable. If it ever comes to be widely recognised that the fate of the coming generations demands our immediate attention, then something in this direction

will become possible. If no such move is ever made, my firm belief is that a very slow decline in the natural qualities of our nation will continue to take place. In these circumstances our civilization would begin to show signs of decay, either immediately or possibly not until after several centuries had elapsed. And these signs would probably be rebellion and chaos within and invasion from without.

Chapter XV

Bigger Families in Good Stocks

THUS far we have mainly been considering how the inferior strains in our race can be diminished, with the object of raising the tone of the whole nation. We now pass on to discuss how the superior strains can be increased, with the same object in view. This might be done by reducing their death-rate; but this is a matter that is always certain to receive great attention. All that need here be considered is whether there are any practical methods of increasing the birth-rate where that is desirable.

When a man and his wife die, they leave two gaps in the ranks of the nation. From this it follows that there should be at least two children in each family, if only to fill up these gaps. But some children die early; others grow up but never marry; and some who marry have no children. In fact, families must have three or four children on the average to keep up the numbers of the nation.

If families in any social class contain only one or two children on the average, and if that class were to be kept apart from the rest of the nation, it follows from what has just been said that it would slowly decrease in numbers and finally vanish. Some social classes, as we have seen, are not diminishing in numbers, only because their ranks are being filled from outside. The breed of a class which is producing very small families is, nevertheless, steadily dying out. When drinking a cup of tea, try filling it up with water after each sip. Go on doing this long enough, and you will find that in the end there is no tea at all in your cup. In the same way, some good breeds are vanishing, even though the numbers in the groups to which they belong are being kept up by additions from outside.

All parents, who have only one or two children when they could have more, are acting as if they thought that their stock was not worth preserving for the nation; for they are doing nothing to prevent it from vanishing. All who will aid in making this one simple fact clear to every one will be helping to save the nation from decay.

But how are we to pick out the good stocks; that is, the couples who should have at least three or four children? We have seen that some who are apparently desirable citizens are carrying the hidden seeds of lunacy and other defects. Others have been insane, and again others have lived criminal lives. All these cases have been considered in previous chapters, and they may now, therefore, be left out of account. Here it is suggested that it would on the whole be well for the nation if all men in well-paid honourable employments were to have four children; that is, families at all events big enough to keep up the numbers of their class. For we have seen that the qualities leading to success of this kind are on the whole such as are to be desired. Yet it is these very people who often have such small families as to tend to make their breed die out. This is a grave national danger.

When it is suggested that wealth should be considered in this connection, some one is sure to cry out about the millionaire and his ill-gotten millions. From the racial point of view, the very rich are of little importance, simply because they are comparatively few in numbers. The millionaire can count only as one in the production of the coming generations. He is of less importance than the feeble-minded woman, for example, who, if left unguarded, is more likely than he is to produce a large family. It is to the mass of the people we must mainly look in regard to all social questions.

Granted that all healthy men drawing good wages for useful work done ought to take their fair share in keeping up the strength of the nation, how are they to be persuaded to do so? This must be done chiefly by an appeal to their sense of duty and patriotism. When our country was

forced to face the perilous risks of the Great War, all our best citizens were ready to send their sons forth to face death for their country's sake. Duty and patriotism are now calling to them just as loudly, if they could only hear it, to supply the men and women needed to maintain our nation in the future in the paths of peace and industry. Surely persons of good stock should feel ashamed to know that parents of bad stock are fulfilling this duty better than themselves.

Here one cannot but ask, What are the reasons which make so many worthy citizens limit the size of their families to such an extent as to tend to wipe out their breed? Some of their reasons are meritorious, though mistaken, whilst some are definitely bad. As to the bad reasons, families are very often limited merely as the result of the love of pleasure. We have nothing to say to the men who put beer before babies, or to the women who rank dress and dances before daughters. If their stock dies out, so much the better.

Ambition is the main cause of small families; and ambition is of two kinds. First there is the desire of parents to rise in the world. This is only bad if it is carried too far. We all see that ambition must not lead to a selfish disregard of the rights of others. Neither must it lead to a disregard of the needs of the nation in the future. To have no more than one or two children in order to make it easy to mount the social ladder should be unsparingly condemned. Snobbishness and the desire for social advancement are found in all ranks of society; and the snobbishness which favours the limitation of families amongst the well-to-do is now doing a deadly injury to the race.

There is certainly one reason for the limitation of the size of the family which is worthy of respect, and that is the desire to make sure that the children already born can be placed in as good positions as is possible. In the following chapters something will be said as to how it could be made more possible in the future to satisfy this ambition of parents where there are several children. But in any case

no excuse must here be found for negleeting the eall of the nation for families of adequate size. True patriots, if sound in body and mind, will, if possible, have four children, even if it involves some slight fall in the soeial scale. If the parents' circumstances are such that they cannot, without help from outside, bring up four ehildren to lead useful and honourable, though not necessarily luxurious, lives, then no doubt they should have few or no children. It is, however, only when another child could not on account of poverty be reared unaided in accordance with a certain minimum standard of civilization that this national eall of duty in regard to parenthood should be ignored.

Amongst highly edueated women the birth-rate is exeeptionally low; and the proportion who do not marry is high. As to women educated in some Ameriean Colleges, there are only one and a half ehildren, on the average, to eaeh married eouple. Probably it is much the same in this eountry. In the next ehapter we shall see that something more might be done to improve the financial position of married women, so as to make marriage more attraetive.

The efforts made by womcn in reeent years to get employment in callings previously only open to men have blinded the eyes of some of them to the faet that women's special duties stand out as amongst the very noblest and most important of all human duties. It depends more on the woman than on the man whether or not a child will be born into the world. Civilization is passed on from generation to generation by tradition. The home is the place where the morals and the eustoms of those who will eome after us are now being determined, chiefly by the mother. If the great importanee of the dutics whieh women only can perform were more widely recognized by women, it would often alter their outlook on life. The ideas absorbed in youth uneonsciously affeet conduct all through life. High ideals as to married life amongst men and women would result in more marriages and wiser marriages.

Saerifices for our country's good must often include the abandonment of personal pleasures and of soeial ambitions.

The path of duty is the road to racial progress. Our civilization cannot be maintained if the better stocks have small families. To make the production of families of adequate size widely felt to be a paramount duty of parents of good stock is the call of eugenics. This idea must be incorporated in our moral code and advocated with religious zeal.

Chapter XVI

Financial Aids to Parenthood

WE have seen that the inefficient and the poor often have large families. We have also seen that the well-to-do, who ought to have several children, generally have very few. Why not make the rich poorer, and then it would seem that they also would have large families? This desirable result is not, however, as we shall see, to be obtained in this manner.

Let us first consider why the poor have large families. For this fact there are several explanations. The man who depends on the use of his muscles to earn his daily bread can do his best work when young. His wages soon cease to rise, and he can marry with no more imprudence when young than when older. The younger the age at marriage, the larger will be the family as a rule. Hence day labourers have comparatively large families.

It would, of course, be folly to try to make men with good natural abilities rely on their muscles rather than on their brains. This explanation why the poor have large families points to no way of increasing the size of the families where such an increase is to be desired.

Another reason for the big families of the poor is that their children go to work at an early age and soon begin to help to fill the family pot. Such children are regarded as a help and not a hindrance, and parents are thus encouraged to have many. But children who go to work when young must leave off schooling at an early age. We want fewer children to be thus handicapped, not more. If all children in all classes were made to suffer this disadvantage, our high civilization would disappear.

Lastly, many couples have big families because they are

naturally careless and take little thought for the future. And the thoughtlessness of these couples also often makes them poor. We cannot wish any one to be improvident. We must not hope for the appearance of larger families in consequence of parents becoming more careless.

What makes people limit the size of their families is really not being rich, but feeling poor. The rich man wishing to be richer feels poorer than the poor man contented with his poverty. People feel poor in every rank of society. We want the well-to-do to feel less poor, not to be poorer. It is the feeling that they cannot live up to the standard customary in their class that tempts a couple to keep the strain of family life within bounds by having few children. We want every skilled artizan, for example, with four or more children, to feel it easier than at present to live in the same way that he sees other artizans living. This would lessen the fear of producing a family large enough to maintain the breed. How can this result be brought about?

Bachelors and childless couples have more money to spend as they like than have those parents with whom they most often associate. It is the childless, therefore, who take a leading part in setting the pace in unnecessary expenditure. If we could take money away from all having no children, the customary expenditure on luxuries would in consequence be diminished. This would make it easier for parents to live up to the customary standard of their class. It would be made still easier for them to do so if the money taken from the childless were to be put into their pockets. If the strain of family life were thus to be eased, couples would in consequence have more children. Moreover, if these transfers of money from the childless to parents were to be made separately in any one class, no other class would be injured thereby. And all this points to several ways of increasing the size of families when that would be desirable.

The first plan to be considered is that known as family allowances; a system under which many millions of workmen in Europe receive their remuneration. The methods

adopted vary greatly in detail. Sometimes all the employees similarly employed in a district form one association. Out of the common fund of this association, allowances are paid to married couples, the amounts varying with the number of children in the family. Sometimes the fund is replenished by payments being made by the employers alone. Sometimes the employees also contribute. The Government may add a contribution, or may take entire charge, dealing with all alike, and covering the whole cost from the public funds.

The advantages which would result from family allowances are obvious. Without such a system, fathers with many children get the same wage as bachelors. When allowances are given the incomes of families vary more or less in proportion to their needs. Difficult questions about equal pay for men and women would also thus be more easily settled. Above all, the welfare of children in large families would often be greatly increased.

The effects likely to be produced on the nation in the future by family allowances must, however, be considered. The knowledge that such allowances would be forthcoming would make marriage seem less formidable in advance, and when received they would make married couples feel less poor. They would, therefore, increase the number of marriages. They would make marriages take place at an earlier age. They would make family limitation less often practised. They would reduce the number of deaths of little children. And for all these four reasons the rate of multiplication of any group of persons in the receipt of family allowances would thus be increased.

We have seen that to increase the size of families when parents are in distress is not only immediately harmful to the nation, but also injurious to the race. If these evil effects are to be avoided, family allowances, if applied to all, must be accompanied by some really effective check on the size of families. This raises nearly the same grave and difficult questions as those which were discussed in Chapter XIV, when considering the ways of diminishing the numbers

of the inferior. At present perhaps all that can be done is to try to make the public realize the dangers to the race which may accompany any method of easing the strain of family life.

Family allowances do, however, form the best way of increasing the size of the family when that is desirable. A small dole would, it is true, have no effect on the conduct of the well-to-do; and if their birth-rate is to be raised by family allowances, both the sums paid in by individuals and the sums received by parents must be higher where the standard of life is higher. This system of allowances may be regarded as an insurance against the expenses of parenthood, and then it will be seen to be fair that those who pay in most should get most out. Such a plan could easily be adopted in all public services, and to strive to promote reforms in this direction should be our first effort. Later on this system might be adopted voluntarily in many callings, to the great advantage of the nation in the future.

If the allowances were to be handed to the wife, the result might be an increase in the feeling of independence amongst married women. This would make some superior women more ready to marry.

The strain on parents of good stock, as compared with that felt by the childless, could also be eased in other ways. For example, in regard to the income tax paid by parents, the deduction on account of children might be increased. And this could be done without altering the distribution of taxation between rich and poor.

In callings where salaries are fixed in advance for each grade, as in the public services, the scale might be rearranged, the senior men getting less and the juniors more. This would lessen customary expenditure on luxuries and encourage early marriages. The change might be made concurrently with the introduction of family allowances.

Parents have to cover heavy expenditure when any of their children pass from elementary schools to colleges or universities. Scholarships should, therefore, be large enough to cover all this extra expenditure. The cost to

the State of such a system, if widely adopted, would be so great that rigid precautions would have to be taken to ensure that no public expenditure was wasted in an attempt to push young people higher up the educational ladder than they are capable of mounting. Any increase of taxation would, moreover, make the taxpayers feel poorer; and it would, therefore, for an indefinite period, reduce the size of the families of some of the best stocks. Expenditure on education must not be increased without limit. Taxation should always be kept at a moderate level, and should be changed as little as possible.

All these methods of increasing the size of families by lessening the strain on parents, thus making it easier for them to live up to the standard of their class, should as far as possible be made applicable to all well-paid workmen, artizans, professional and business men. This would certainly help to maintain the quality of our nation in the future. But it would only be a help. Unjustifiable social ambition is the main cause of the small families of persons of good stock. Success in the field of eugenics will mainly depend on the moral aspirations and the sense of patriotism of the mass of the people being aroused in the right directions.

Chapter XVII

Selection in Marriage

THOSE who marry any one with any serious defect of body, mind, or character are apt to bring trouble on both themselves and their children. This is because such failings are not only immediately harmful, but may be passed on to succeeding generations by natural inheritance or by example. To be careful in the choice made in marriage will, therefore, benefit the nation and the race.

To spread the view that great forethought ought to be exercised in the selection of a partner for life has, indeed, been held by some authorities to be the most important aim of eugenics. And certainly it is very important. But there are reasons why too much reliance must not be placed on selection in marriage as a racial safeguard. These reasons will now be briefly stated.

Let it be supposed that I have four dogs, two well bred and two ill bred. Of course I wish to mate together the two well-bred animals, so that I shall get puppies as well bred as possible. But how about the ill-bred dogs? If I take care that they do not breed, nothing more need be said. But if I were to let them mate together, and if they were to have four puppies, whilst my well-bred couple had only two, then my group of puppies would contain twice as many ill-bred as well-bred dogs. This gives a rough illustration of the way in which our own race may now be going down hill.

This illustration also shows that careful selection in marriage does no good to the breed of the nation as a whole if those who are passed by in the first instance marry as certainly and as quickly as those selected before them. In other words, the exercise of care as to choice in marriage is beneficial to the race only in so far as it delays or hinders the marriages of the worse types. No doubt the silly or

weakly in each class are less likely to marry, or are likely to marry later in life, because of their defects. In this way the nation is always to some extent being kept up to the mark. The greater the care taken as to the choice made in marriage, the more effective will be this check on parenthood amongst those in any way defective or inferior, and the better it will be for the race in the future.

On the other hand, if we make young people more particular, the result may be that the better types will become less likely to marry. This would defeat the end we have in view. How are we to steer between these opposing considerations?

Our first and most important aim should be to plant high ideals in the minds of the young. This should be done in regard to all things rather than with special reference to marriage. To succeed in this endeavour, it is of the utmost importance that we should ourselves set a good example. If we associate with persons with blots on their characters, our object being our own amusement, we must expect our children to do the same. If we only make worthy friends, our children will of their own accord also associate with worthy companions. This is the best method of safeguarding them against unhappy marriages. And in this way we shall also help to maintain the quality of our race in the future.

Our next aim should be to give young people ample opportunities of meeting each other. The occasions chosen must be suitable, and undesirable partners should be excluded as far as possible. Then let the young alone to settle their own affairs. They will fall in love with each other quickly enough.

Marriage between those of good stock ought to be as enduring as possible. This is because such marriages ought to result in plenty of children, all of whom should have the advantage of the companionship of both parents. Now love is the best cement for holding a couple together. Hence to promote marriages for love should be our aim.

But we must not blind ourselves to the fact that it is

impossible to force high ideals into low minds. A person who is markedly inferior in mind will generally prefer to marry another person of like inferiority. Amongst such as these we can do little towards preventing parenthood, either by example or precept. Definite steps, such as those described in Chapter XIV, ought to be taken to reduce the size of the families of those of inferior stock. If this is not done, merely to preach care in marriage will do little towards saving the race.

Turning to a different point, when a person has grounds for fearing that insanity, for example, may appear in his children, he is often advised to avoid marriage with any one similarly threatened. Now, it is true that the child who gets a double dose, so to speak, of harmful heredity, one from the father and one from the mother, is more than twice as likely in consequence to be cursed with the threatened evil. It is, therefore, worldly wisdom to avoid a marriage with a person similarly threatened. But let there be no mistake as to what is being done. A harmful inheritance is not destroyed by marriage with good stock. It is in consequence merely more often concealed and made to become more widely scattered. If it does not show itself, it will nevertheless lie hidden, but ready to come out in any future generation.

The same principle applies to the marriages of cousins. They are only harmful if the stock common to both parents is bad. When both stocks are good, children of such marriages will have a double chance of turning out well. If the stock on both sides is bad, the children of cousin marriages will be likely to show the evil qualities common to the ancestors on both sides. This is true even if neither of the parents shows any visible defects; for such defects may lie completely hidden. Marriages between cousins are, therefore, open to objection as regards immediate results. As regards the effects on the race, to marry a cousin is no worse than marrying anyone else. It would not increase the evil inheritance, though it might bring it to light, and consequently make it more easily stamped out. The immediate effects of cousin marriages may be very harmful, whilst the

ultimate effects may be good. Probably it is best to say that they should be discouraged, but not condemned. More knowledge will throw more light on this difficult question.

One general rule can, however, now be laid down; and this is that, if a person seems likely to transmit any evil quality to his descendants, the first question to decide is whether he or she ought to refrain from marriage. In coming to a decision, no thought ought to be given as to who is to be the other party to the marriage. This is because, as we have seen, the race will in the long run be injured rather than benefited by mating good stock to bad.

To give up marriage out of a sense of duty may require great moral courage and may involve a great sacrifice. Before deciding that such a sacrifice ought to be made, a few other points should be considered. Good qualities as well as bad should always be given full weight in the balance—a point often forgotten. Then, again, a childless marriage is sometimes justifiable. Lastly, when there is much doubt as to the probability of the harmful qualities of the ancestors reappearing in the children, marriage with a very small family may be the right course to take.

The question whether a medical certificate should always be obtained before marriage has often been raised, generally in connection with venereal diseases. These terrible maladies are not now under consideration, and no opinion bearing on them will here be expressed. It would, however, in any circumstances be objectionable if doctors were to be placed in such a position that they could absolutely prohibit a marriage. On the other hand, it would be advantageous if before marriage each party had to certify that he or she was free from certain diseases, and had never either been certified as a lunatic or mentally defective, or had been in prison, or previously married, or divorced. Full particulars should be given when such a certificate could not be signed, and severe punishment enforced for false statements. Such certificates would be to some extent a safeguard, but would be even more useful in calling attention to these subjects.

As in previous chapters, we here find that to spread abroad noble ideas is the surest way of promoting racial progress. Wise marriages based on affection will thus be promoted, and foolish ones rendered less probable. Great sacrifices in regard to marriage and parenthood, producing beneficial results, will be more often made. Some needed reforms would involve the infliction of suffering; and, when this is the case, it is far pleasanter to push all such disagreeable subjects out of our minds. Without moral courage no advance will be made.

What has just been said is true not only as regards marriage, but as to all the other problems which have here been discussed. As to the scientific questions involved, it is greatly to be desired that all men and women would so control their minds as to be able to look into them without either passion or prejudice. Ignorance is always the enemy of progress, and ignorance would thus best be overcome. Selfishness is, however, an even greater enemy to human welfare. Our first aim must be to arouse moral sentiments, including true patriotism, to the highest possible pitch. This would make members of bad stock ready to make that great and noble sacrifice which would deprive them of some or all of the joys of family life. In the same way, the well-to-do would be made to be willing to sacrifice personal comfort, so as to enable them to supply their share of recruits to the coming generation; recruits who will then be needed to fight the good fight for peace and progress. Again, the politician might thus be so stimulated that he would be willing even to sacrifice a few votes in consequence of his advocacy of racial safeguards destined to benefit his nation for countless generations in the future.

Eugenics rests on pure science for its foundations of fact. But it is on religion, including all the promptings of the inner man towards better things, that eugenics must rely for the motive force needed in the long struggle for human progress which lies before us.

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